



Assessment in Early Childhood Education

EIGHTH EDITION



Sue C. Wortham • Belinda J. Hardin

Eighth Edition

Assessment in Early Childhood Education

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Brief Contents

About the Authors	viii	
Preface	ix	
PART I		PART III Classroom Assessments
Introduction to Assessment in Early Childhood		
1 An Overview of Assessment in Early Childhood	1	6 Data-Driven Decision Making, Assessment, and Documentation 137
2 How Infants and Young Children Should Be Assessed	33	7 Observation 153
3 Communicating with Families	59	8 Checklists, Rating Scales, and Rubrics 187
PART II Standardized Tests		9 Teacher-Designed Assessment Strategies 215
4 How Standardized Tests Are Used, Designed, and Selected	78	10 Performance-Based Assessment Strategies 244
5 Using and Reporting Standardized Test Results	106	11 Portfolio Assessment 271
		Glossary 299
		Index 303

Contents

About the Authors	viii	How Infants and Young Children Are Assessed	39
Preface	ix	Elements of a Comprehensive System of Assessment for Children of All Ages	42
Part I Introduction to Assessment in Early Childhood		Components of an Assessment System for Infants and Toddlers	43
1 An Overview of Assessment in Early Childhood	1	Elements of an Assessment System for Young Children	45
Understanding the Purposes of Assessment in Infancy and Early Childhood	2	Using Assessment Results for Instruction and to Evaluate the Instructional Program	47
What Is Assessment?	2	Using Assessment Results to Plan for Instruction	48
Purposes of Assessment	3	Using Assessment Results to Report Progress	48
The History of Tests and Measurements in Early Childhood	4	Using Assessment Results to Evaluate the Instructional Program	48
The Child Study Movement	5	Environmental Assessment	49
Standardized Tests	6	How the Assessment Process Should Be Implemented During the School Year with School-Age Children	50
Head Start and the War on Poverty	7	Preassessment	50
Legislation for Young Children with Disabilities	8	Ongoing Assessment	50
Issues and Trends in Assessment in Early Childhood Education	11	Assessment at the End of Instructional Cycles	51
Issues in a New Century: The Accountability Era	12	End of the School Year Assessment	51
Concerns about Assessing Infants and Toddlers	14	Challenges and Guidelines in Assessing Young Children for Standards	51
Concerns about Assessing Young Children in Early Childhood Settings	14	Evolution of Early Learning Standards	52
Concerns about Assessing Young Children with Cultural and Language Differences	15	Challenges When Assessing Young Children to Meet Standards	52
Concerns about Assessing Young Children with Disabilities	18	Guidelines for Working with Young Children in an Assessment Setting	53
Trends in a New Century	20	Summary	54
Summary	25	Key Terms	55
Suggested Activities	26	Selected Organizations	55
Key Terms	26	References	56
Selected Organizations	26	3 Communicating with Families	59
References	26	Family–Professional Partnerships that Promote Children’s Development and Learning	60
2 How Infants and Young Children Should Be Assessed	33	Strategies for Establishing and Maintaining Family–Professional Partnerships that Benefit Children	63
The Principles of Assessment for All Children	34	Establishing Relationships with Families	63
Assessment Should Use Multiple Sources of Information	34	Using Professional Ethics in School–Family Partnerships	65
Principles of Assessment for Young Children	37	The Role of Families in the Screening and Assessment Process	66

Soliciting Parental Input for Assessment and Planning	67	Uses of Norm-Referenced Tests with Preschool Children	109
Families from Diverse Cultures	67	Uses of Norm-Referenced Tests with School-Age Children	110
Families of Children with Disabilities	68	Uses of Criterion-Referenced Tests with Preschool Children	110
Conducting Effective Parent Conferences	70	Uses of Criterion-Referenced Tests with School-Age Children	113
Types of Parent Conferences	71	How Standardized Tests Are Interpreted	116
Preparing for Family Conferences	71	The Normal Curve	117
Conducting Family Conferences	73	Standard Deviations	118
Summary	75	Percentile Ranks and Stanines	119
Key Terms	75	Z Scores and T Scores	120
Selected Organizations	75	How Standardized Test Results Are Reported	121
References	76	Reporting Standardized Test Results to Professionals	122
Part II Standardized Tests		Individual Test Record	122
4 How Standardized Tests Are Used, Designed, and Selected	78	Norm-Referenced Scores	122
How Standardized Tests Are Used with Infants and Young Children	79	Class Reports	122
Types of Standardized Tests	79	School and District Reports	124
Tests for Infants	80	Reporting Standardized Test Scores to Parents	125
Tests for Preschool Children	82	Sharing Assessment Results with Parents of Children with Disabilities and/or English Language Learners (ELLs)	126
Tests for School-Age Children	88	Advantages and Disadvantages of Using Standardized Tests with Young Children	126
Steps in Standardized Test Design	92	Advantages of Standardized Tests	127
Specifying the Purpose of the Test	92	Disadvantages of Standardized Tests	128
Determining Test Format	92	High Stakes Testing	129
Developing Experimental Forms	93	Measurement Limitations	129
Assembling the Test	94	Assessment of Students with Disabilities and/or English Language Learners (ELLs)	130
Standardizing the Test	94	Misapplication of Test Results with Young Children	131
Developing the Test Manual	95	Summary	132
Differences between Test Validity and Test Reliability	95	Key Terms	133
Factors that Affect Validity and Reliability	97	Selected Organizations	133
Standard Error of Measurement	97	References	134
Considerations in Selecting and Evaluating Standardized Tests	98	Part III Classroom Assessments	
Summary	101	6 Data-Driven Decision Making, Assessment, and Documentation	137
Key Terms	102	Purposes of Assessment in Data-Driven Decision Making	138
Selected Organizations	102	Defining Data-Driven Decision Making	138
References	102	Purposes of Data-Driven Decision Making	139
5 Using and Reporting Standardized Test Results	106		
Distinctions between Norm-Referenced and Criterion-Referenced Tests	107		
Uses of Norm-Referenced Tests and Criterion-Referenced Tests with Infants	109		

The Role of Documentation	141	8 Checklists, Rating Scales, and Rubrics	187
The Influence of Reggio Emilia	141	How Checklists Are Designed and Used with Young Children	188
Types of Documentation	143	Using Checklists with Infants, Toddlers, and Preschool Children	188
Narratives	145	Using Checklists with School-Age Children	189
Observations of Progress and Performance	146	Using Checklists to Assess Children with Special Needs	190
Child Self-Reflections	146	Using Checklists to Assess English Language Learners (ELLs)	190
Results of Work and Play Activities	147	How Checklists Are Designed	191
Individual Portfolios	148	Steps in Designing Checklists	192
Summary	150	Checklists and Standards	194
Key Terms	151	How Teachers Evaluate and Assess with Checklists	198
Selected Organizations	151	Evaluating Checklist Objectives by Observation	198
References	151	Evaluating Checklist Objectives with Learning Activities	198
7 Observation	153	Evaluating Checklist Objectives with Specific Tasks	199
Purposes of Observation	154	Advantages and Disadvantages of Using Checklists with Young Children	199
Understanding Children's Behavior	154	Advantages of Using Checklists	199
Evaluating Children's Development	155	Disadvantages of Using Checklists	199
Evaluating Learning Progress	162	Types of Rating Scales and How They Are Used with Young Children	200
Types of Observation	164	Numerical Rating Scales	200
Anecdotal Record	164	Graphic Rating Scales	201
Running Record	166	Uses of Rating Scales	201
Time Sampling	169	Advantages of Using Rating Scales	205
Event Sampling	170	Disadvantages of Using Rating Scales	206
Advantages and Disadvantages of Using Event Sampling	171	Types of Rubrics and How They Are Designed and Used	207
Checklists and Rating Scales	172	Types of Rubrics	208
Observations and Technology	172	How Rubrics Are Designed and Used	210
Benefits and Disadvantages of Using Technology for Observations	174	Advantages of Using Rubrics	212
Observing Development	174	Disadvantages of Using Rubrics	212
Physical Development	175	Summary	212
Social and Emotional Development	176	Key Terms	213
Cognitive Development	177	Selected Organizations	213
Language Development	178	References	214
Advantages and Disadvantages of Using Observation for Assessment	179	9 Teacher-Designed Assessment Strategies	215
Observation Guidelines	180	Purposes of Teacher-Designed Assessments and Tests	216
Determining the Observation Site	180		
Observer Behaviors during the Observation Visit	181		
Ethics during the Observation Visit	181		
Avoiding Personal Bias	182		
Summary	183		
Key Terms	183		
Organizations	183		
References	184		

Types of Teacher-Designed Assessments Used with Preschool and Primary-Grade Children	218	Advantages of Using Performance-Based Assessment	262
Developing Quality Teacher-Designed Assessments	222	Disadvantages of Using Performance-Based Assessment	264
Concrete Tasks for Preschool	223	Summary	267
Tests for Primary-Grade Children	223	Key Terms	268
Steps in Test Design	225	Selected Organizations	268
Determining Instructional Objectives	225	References	268
Constructing a Table of Specifications	227		
Designing Formative and Summative Evaluations	231		
Designing Learning Experiences	234		
Designing Correctives and Enrichment Activities	235		
Advantages and Disadvantages of Using Teacher-Designed Assessments	239	11 Portfolio Assessment	271
Summary	241	Purposes and Types of Portfolio Assessments	272
Key Terms	242	Purposes of Portfolio Assessment	273
Selected Organizations	242	Types of Portfolios	274
References	242	Strategies for Organizing Portfolios	276
		Organizing Portfolios Using a Developmental Approach	276
		Organizing Portfolios Using a Subject-Area Approach	278
10 Performance-Based Assessment Strategies	244	Setting Up and Using a Portfolio Assessment System	279
Performance-Based Strategies and How They Are Used	244	Steps in Getting Started	280
Understanding Performance Assessment	245	Collecting and Organizing Work	282
Authentic Learning and Assessment	246	Selecting Portfolio Assessments	282
Interrelated Nature of Performance-Based Assessments	246	Analyzing Portfolio Assessments	283
Purposes for Performance-Based Assessment	248	Strategies for Developing Quality Portfolios	283
Types of Performance-Based Assessments	249	Advantages and Disadvantages of Using Portfolios to Report Student Progress	286
Interviews	250	Reporting Progress Using Narrative Reports	289
Contracts	252	Using Narrative Reports to Report Student Progress	289
Directed Assignments	252	Advantages and Disadvantages of Using Narrative Reports	290
Games	253	Model Assessment and Reporting Systems	292
Work Samples	253	Project Spectrum	293
Projects	254	The Work Sampling System	293
Portfolios	255	The Preschool Child Observation Record	294
Categorizing and Organizing Performance Assessments	255	Teacher-Designed Systems	295
The Role of Observation	256	Summary	296
The Role of Documentation	257	Key Terms	297
The Role of Rubrics	258	Selected Organizations	297
Standards and Performance-Based Assessment	260	References	297
Connecting Standards to Authentic Learning	260		
Connecting Standards to Performance Assessment	261		
Advantages and Disadvantages of Using Performance-Based Assessment	262	Glossary	299
		Index	303

About the Authors

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She has authored numerous texts, including *Early Childhood Curriculum: Developmental Bases for Learning and Teaching* (5th ed., 2010), Pearson. She coauthored *Play and Child Development* (4th ed., 2012) with Joe Frost and Stuart Reifel, also published by Pearson. Organizational publications include *Childhood 1892–2002*, published by the Association for Childhood Education International, and *Playgrounds for Young Children: National Survey and Perspectives*, coauthored with Joe Frost, published by the American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD).

In 1992, she served as a Fulbright Scholar in Chile. She was president of the Association for

Childhood Education International (ACEI) from 1995 to 1997. Since retirement, she has been very active in the development of the Global Guidelines for Early Childhood Education and Care that resulted from an international symposium held in Ruschlikon, Switzerland, in 1999. Subsequently, she has a leadership role in the development, validation, and implementation of the ACEI Global Guidelines Assessment adapted from the original guidelines. She edited *Common Characteristics and Unique Qualities in Preschool Programs: Global Perspectives in Early Childhood Education* for Springer in 2013, which reported on the use of the *Global Guidelines Assessment* in countries around the world.

Dr. Wortham served as volunteer director of educational programs for World Children's Relief and Volunteer Organization, a small nongovernmental organization (NGO), from 2001 to 2011. She engaged in training teachers and principals in Haiti, Senegal, Burkina Faso, and Sierra Leone.

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Her research includes cross-cultural studies investigating the effectiveness of services for young children with and without disabilities in the United States and other countries, particularly in Latin America. She is especially interested in measures of program quality with global applicability and how they are informed by sociocultural context. She served as the Co-Principal Investigator of three national studies in the United States that investigated the reliability and validity of Learning Accomplishment Profile assessment instruments, including a dual-language sample

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Additionally, Dr. Hardin completed studies investigating the referral, evaluation, and placement of preschool children with disabilities who are English Language Learners and is currently developing a family report questionnaire on preschool language development in English and Spanish. Dr. Hardin has conducted research and professional development activities with professionals and Spanish-speaking families in North Carolina, Guatemala, and the Yucatan Peninsula of Mexico. She was the Co-Principal Investigator of three international studies investigating the reliability and validity of the ACEI Global Guidelines Assessment in multiple countries around the world. Dr. Hardin has served on the Board of Directors for the Association of Childhood Education International and participated in two initiatives spearheaded by UNICEF to improve services for young children in inclusive early childhood settings worldwide.

Preface

Students preparing to become teachers of young children from infancy through the early primary grades must be prepared to measure or evaluate children who are in the period of development called *early childhood*. Tests and other types of assessments designed for young children are different from those intended for children in later grades in elementary school. Because infants and children under age 8 have developmental needs different from those of older children, a textbook that includes discussion of assessment in the early childhood years must be written from a developmental perspective.

In the second decade of the 21st century, early childhood educators have been challenged in their efforts to assess very young children using the most important strategies for their ongoing development. As a result, it is especially important that future teachers and teachers who are struggling with these issues be fully informed about the range of assessment possibilities and when they are the most beneficial for young children.

Traditional and Authentic Assessment Strategies

This book is written for future teachers and current teachers of young children. It includes information about standardized tests and, more importantly, other types of assessments that are appropriate for young children, such as screening tools, observations, checklists, and rating scales. Assessments designed by teachers are explained both for preschool children and for kindergarten and primary-grade children who are transitioning into literacy. With the ever-growing trend toward performance assessment, portfolios, and other methods of reporting a child's performance, chapters describing these strategies have been expanded and enhanced. The approach of this edition is the development of an assessment system that includes traditional as well as authentic assessment strategies in a comprehensive plan. Thus, in this new edition, we seek to inform the reader about all types of assessments and their appropriate use.

New to This Edition

- Search and Share activities in each chapter give students an opportunity to identify pertinent information from the web for further understanding and discussion.
- Chapter 3, Communicating with Families, was previously located as Chapter 11 and has now been moved forward and expanded to increase the role of the family-professional relationship. Parents are recognized as equal partners with their child's teacher.
- Chapter 4, How Standardized Tests Are Used, Designed, and Selected, includes new information about current editions of screening and assessment instruments.
- Chapter 6, Data-Driven Decision Making, Assessment and Documentation, changes the emphasis from classroom assessments in general to specific information on how data from assessments are used to make instructional decisions.
- Relevant information about the Common Core State Standards and Early Learning Standards has been integrated where appropriate throughout the text.
- Expanded information on children with disabilities and English language learners (ELLs) appears in all chapters throughout the text.

How to Assess Young Children

Earlier editions of this book were developed in response to the expressed needs of teachers and graduate students who must understand and use current trends in assessment and put them into perspective within the reality of public schools that are required to focus intensively on standardized tests. Fortunately, commercial publishers of curriculum kits and textbooks for public schools are increasingly including performance assessments along with traditional assessments in their guides for teachers. Portfolios are becoming common as well. Nevertheless, teachers still need help in maintaining a balance between these new strategies and standardized testing.

An important factor in the assessment of young children is determining when and how they should be measured. This is a controversial issue. The strengths and weaknesses of each type of assessment presented are discussed, as is research on the problems surrounding testing and evaluation in early childhood. Because many sources in the literature and other textbooks do not include the limitations in addition to the merits of assessment techniques, this text provides an objective perspective on issues surrounding the efficacy and effectiveness of assessment strategies.

Organization

The book is divided into three parts. Part I provides an introduction to assessment in early childhood in **Chapters 1 and 2**. **Chapter 3** addresses the partnership between families and school professionals. Part II is devoted to standardized tests and how they are designed, used, and reported in **Chapters 4 and 5**. Classroom assessments are discussed in Part III. **Chapter 6** is a new chapter that focuses on data-driven assessment and documentation, while **Chapter 7** includes expanded information on observation. Checklists, rating scales, and rubrics are covered in **Chapter 8**. **Chapter 9** discusses teacher-designed strategies, while **Chapter 10** focuses on performance-based assessment strategies. Finally, **Chapter 11** brings all the assessment strategies together into a portfolio system.

Instructor Supplements

The supplements for this edition have been revised, upgraded, and made available for instructors to download on www.pearsonhighered.com/educators.

- **Instructor's Resource Manual** This manual contains chapter overviews and activity ideas to enhance chapter concepts.
- **Test Bank.** The Test Bank includes a variety of test items, including multiple-choice and short-answer items.
- **PowerPoint Slides.** PowerPoint slides highlight key concepts and strategies in each chapter and enhance lectures and discussions.

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Chapter 1

An Overview of Assessment in Early Childhood



Suzanne Clouzeau/Pearson Education, Inc.



Chapter Learning Outcomes

As a result of reading this chapter, you will be able to:

- 1.1** Explain the purposes of assessment in early childhood.
- 1.2** Describe the history of tests and measurements in early childhood.
- 1.3** Discuss issues and trends in assessing all young children.

Understanding the Purposes of Assessment in Infancy and Early Childhood

Not too long ago, resources on early childhood assessment were limited to occasional articles in journals, chapters in textbooks on teaching in early childhood programs, and a few small textbooks that were used as secondary texts in an early childhood education course. Very few teacher preparation programs offered a course devoted to assessment in early childhood. Now, in the 21st century, assessment of very young children has experienced a period of rapid growth and expansion. In fact, it has been described as a “virtual explosion of testing in public schools” (Meisels & Atkins-Burnett, 2005, p. 1). Some of the most recent concerns relate to the mandated tests used with the Common Core State Standards Initiative. Other issues arise from the increased use of tests selected by individual school districts (DeWitt, 2014; Lazarin, 2014).

There has also been an explosion in the numbers of infants, toddlers, and preschoolers in early childhood programs and the types of programs that serve them. Moreover, the diversity among these young children increases each year. For example, Head Start programs serve children and families who speak at least 140 different languages. In some Head Start classrooms, 10 different languages might be spoken. Currently, nearly a third of children enrolled in Head Start speak Spanish as their first language (HHS/ACF/OHS, 2017). Head Start teaching teams may be multilingual, also representing growth in the diversity of the U.S. population (David, 2005; HHS/ACF/OHS, 2010).

What Is Assessment?

What do we need to know about all the diverse children found in services for infants and young children from all kinds of families, cultures, and languages? The study of individuals for measurement purposes begins before birth with assessment of fetal growth and development. At birth and throughout infancy and early childhood, various methods of measurement are used to evaluate the child’s growth and development. Before a young child enters a preschool program, he or she is measured through medical examinations. Children are also measured through **observations** of developmental milestones, such as saying the first word or walking independently, by parents and other family members. Children might also be screened or evaluated for an early childhood program or service. Assessment is really a *process*. A current definition describes the assessment process as follows: “**Assessment** is the process of gathering information about children from several forms of evidence, then organizing and interpreting that information” (McAfee, Leong, & Bodrova, 2004, p. 3). The U.S. Department of Education describes assessment as a comprehensive system that includes screening measures, formative assessment, measures of environmental quality, and measures of the quality of adult–child interactions (U.S. Department of Education, n.d). The U.S. Department of Education’s approach considers factors beyond the child to include the family and other adults that can affect that child.

Assessment of children from birth through the preschool years is different from assessment of older people. Not only can young children not yet write or read, but the assessment of young, developing children also presents different challenges that influence the choice of measurement strategy, or how to measure or assess the children. Assessment methods must be matched with the level of mental, social, and physical development at each stage. Developmental change in young children is rapid, and there is a need to assess

whether development is progressing normally. If development is not normal, the measurement and evaluation procedures used are important in making decisions regarding appropriate intervention services during infancy and the preschool years (Jiban, 2013).

The term *assessment* can have different meanings when used with different age groups. An infant or toddler can be assessed to determine instructional needs in Early Head Start programs or to determine eligibility for early intervention services, for example. A preschool child may be assessed to determine school readiness or special education needs. A school-age child may be assessed to understand his or her academic achievement and/or whether the child is ready for the next grade level.

Purposes of Assessment

Assessment is used for various purposes. An *evaluation* may be conducted to assess a young child's development overall or in a specific developmental domain such as language or mathematics. Evaluations usually include multiple sources of assessment. When we need to learn more, we may assess the child by asking her or him to describe what she or he has achieved. For example, a first-grade teacher may use measurement techniques to determine what reading skills have been mastered and what weaknesses exist that indicate a need for additional instruction.

Assessment strategies may be used for *diagnosis*. Just as a medical doctor conducts a physical examination of a child to diagnose an illness, psychologists, teachers, and other adults who work with children can conduct an informal or formal assessment to diagnose a developmental delay or causes for poor performance in learning, as well as to identify strengths. Assessment for this purpose may be one part of the initial evaluation process, which may also include observation, a review of medical records, and information from parents to identify their concerns, priorities, and resources.

If medical problems, birth defects, or developmental delays in motor, language, cognitive, or social development are discovered during the early, critical periods of development, steps can be taken to correct, minimize, or remediate them before the child enters school. With many developmental deficits or differences, the earlier they are detected and the earlier intervention is planned, the more likely the child will be able to overcome them or compensate for them. For example, if a serious hearing deficit is identified early, the child can learn other methods of communicating and acquiring information.

Assessment of young children is also used for *placement*—to place them in infant or early childhood programs or to provide special services. To ensure that a child receives the best services, careful **screening** followed by more extensive testing and observation may be conducted before selecting the combination of intervention programs and other services that will best serve the child.

Program planning is another purpose of assessment. After children have been identified and evaluated for an intervention program or service, assessment results can be used in planning the individualized programs that will serve them. These programs, in turn, can be evaluated to determine their effectiveness.

Besides identifying and correcting developmental problems, assessment of very young children is conducted for other purposes. One purpose is *research*. Researchers study young children to better understand their behavior or to measure the appropriateness of the experiences that are provided for them.

Early Intervention for a Child with Hearing Impairment

Julio, who is 2 years old, was born prematurely. He did not have regular checkups during his first year, but his mother took him to a community clinic when he had a cold and fever at about 9 months of age. When the doctor noticed that Julio did not react to normal sounds in the examining room, she stood behind him and clapped her hands near each ear. Because Julio did not turn toward the clapping sounds, the doctor suspected that he had a hearing loss. She arranged for Julio to be examined by an audiologist at an eye, ear, nose, and throat clinic.

Julio was found to have a significant hearing loss in both ears. He was fitted with hearing aids and is attending a special program twice a week for children with hearing deficits. Therapists in the program are teaching Julio to speak. They are also teaching his mother how to make Julio aware of his surroundings and help him to develop a vocabulary. Had Julio not received intervention services at an early age, he might have entered school with severe cognitive and learning deficits that would have put him at a higher risk for failing to learn.

How were these assessment strategies developed? In the next section, we describe how certain movements or factors, especially during the past century, have affected the development of testing instruments, procedures, and other measurement techniques that are used with infants and young children.

The History of Tests and Measurements in Early Childhood

Interest in studying young children to understand their growth and development dates back to the initial recognition of childhood as a separate period in the life cycle. Johann Pestalozzi, a pioneer in developing educational programs specifically for children, wrote about the development of his 3-year-old son in 1774 (Irwin & Bushnell, 1980). Early publications also reflected concern for the proper upbringing and education of young children. *Some Thoughts Concerning Education* by John Locke (1699), *Emile* by Rousseau (1762/1911), and Frederick Froebel's *Education of Man* (1896) were influential in focusing attention on the characteristics and needs of children in the 18th and 19th centuries. Rousseau believed that human nature was essentially good and that education must allow that goodness to unfold. He stated that more attention should be given to studying the child so that education could be adapted to meet individual needs (Weber, 1984). The study of children, as advocated by Rousseau, did not begin until the late 19th and early 20th centuries.

Scientists throughout the world used observation to measure human behaviors. Ivan Pavlov proposed a theory of conditioning to change behaviors. Alfred Binet developed the concept of a normal mental age by studying memory, attention, and intelligence in children. Binet and Theophile Simon developed an intelligence scale to

determine mental age that made it possible to differentiate the abilities of individual children (Weber, 1984). American psychologists expanded these early efforts, developing instruments for various types of measurement.

The study and measurement of young children today has evolved from the child study movement, the development of standardized tests, Head Start and other federal programs first funded in the 1960s, the passage of Public Law 94-142 (now called the Individuals with Disabilities Education Improvement Act of 2004), and Public Law 99-457 (an expansion of PL 94-142 to include infants, toddlers, and preschoolers). Most recently, there has been a movement toward more meaningful learning or authentic achievement and assessment (Newmann, 1996; Wiggins, 1993). At the same time, continuing progress is being made in identifying, diagnosing, and providing more appropriate intervention for infants and young children with disabilities (Epstein, Schweinhart, DeBruin-Parecki, & Robin, 2004; Meisels & Fenichel, 1996).

The Child Study Movement

G. Stanley Hall, Charles Darwin, and Lawrence Frank were leaders in the development of the child study movement that emerged at the beginning of the 20th century. Darwin, in suggesting that by studying the development of the infant one could glimpse the development of the human species, initiated the scientific study of the child (Kessen, 1965). Hall developed and extended methods of studying children. After he became president of Clark University in Worcester, Massachusetts, he established a major center for child study. Hall's students—John Dewey, Arnold Gesell, and Lewis Terman—all made major contributions to the study and measurement of children. Dewey advocated educational reform that affected the development of educational programs for young children. Gesell first described the behaviors that emerged in children at each chronological age. Terman became a leader in the development of psychological tests (Irwin & Bushnell, 1980; Wortham, 2002).

Research in child rearing and child care was furthered by the establishment of the Laura Spelman Rockefeller Memorial child development grants. Under the leadership of Lawrence Frank, institutes for child development were funded by the Rockefeller grants at Columbia University Teacher's College (New York), the University of Minnesota, the University of California at Berkeley, Arnold Gesell's Clinic of Child Development at Yale University, the Iowa Child Welfare Station, and other locations.

With the establishment of child study at academic centers, preschool children could be observed in group settings, rather than as individuals in the home. With the development of laboratory schools and nursery schools in the home economics departments of colleges and universities, child study research could also include the family in broadening the understanding of child development. Researchers from many disciplines joined in an ongoing child study movement that originated strategies for observing and measuring development. The results of their research led to an abundant literature. Between the 1890s and the 1950s, hundreds of children were studied in academic settings throughout the United States (Weber, 1984). Thus, the child study movement taught us to use observation and other strategies to assess the child. Investigators today continue to add new knowledge about child development and learning that aids parents, preschool teachers and staff members, and professionals in institutions and agencies that provide services to children and families. In the last decade of the 20th century and in the 21st century, brain research has opened up a whole new perspective of the nature of cognitive development and the importance of the early years for optimum

development and later learning (Begley, 1997; National Scientific Council on the Developing Child, 2004, 2010; Shore, 1997). These new findings have caused early childhood educators to reflect on the factors that affect early development and the implications for programming for children in infancy and early childhood. Recent research has focused on longitudinal studies of children as they grow up, children's development globally, and psychophysiological and neuroscience experiments to measure influences on child growth and development.

Standardized Tests

Standardized testing also began around 1900. When colleges and universities in the East sought applicants from other areas of the nation in the 1920s, they found the high school transcripts of these students difficult to evaluate. The *Scholastic Aptitude Test* (SAT) was established to permit fairer comparisons of applicants seeking admission (Cronbach, 1990).

As public schools expanded to offer 12 years of education, a similar phenomenon occurred. To determine the level and pace of instruction and the grouping of students without regard for socioeconomic class, objective tests were developed (Gardner, 1961). These tests grew out of the need to sort, select, or otherwise make decisions about both children and adults.

The first efforts to design tests were informal. When a psychologist, researcher, or physician needed a method to observe a behavior, he or she developed a procedure to meet those needs. This procedure was often adopted by others with the same needs. When many people wanted to use a particular measurement strategy or test, the developer prepared printed copies for sale. As the demand for tests grew, textbook publishers and firms specializing in test development and production also began to create and sell tests (Cronbach, 1990).

American psychologists built on the work of Binet and Simon in developing the intelligence measures described earlier. Binet's instrument, revised by Terman at Stanford University, came to be known as the *Stanford-Binet Intelligence Scale*. Other Americans, particularly educators, welcomed the opportunity to use precise measurements to evaluate learning. Edward Thorndike and his students designed measures to evaluate achievement in reading, mathematics, spelling, and language ability (Weber, 1984). Because of the work of Terman and Thorndike, testing soon became a science (Scherer, 1999). By 1918, more than 100 standardized tests had been designed to measure school achievement (Monroe, 1918).

The Industrial Revolution in the 1800s was a major influence in the development of standardized tests. School-age children were taken out of factories and farms to attend school. Standardized tests made it possible to assess the new, large numbers of students. The SAT and ACT college entrance exams became the most prevalent standardized tests used to assess college eligibility. The SAT was founded in 1926. It remained largely unchanged until 2005, when a writing section was added. The current version of the SAT, published in 2016, was revised to be more reflective of education in the United States and has received positive reviews by users (The College Board, 2017). The ACT was developed to compete with the SAT in 1959. The ACT assesses accumulated knowledge. Both tests are widely used today (Fletcher, 2009). However, colleges and universities are in the process of developing other measures beyond standardized tests to access other accomplishments that can contribute toward success in higher education.

After World War II, the demand for dependable and technically refined tests grew, and people of all ages came to be tested. As individuals and institutions selected and developed their own tests, the use of testing became more centralized. Statewide tests were administered in schools, and tests were increasingly used at the national level.

The expanded use of tests resulted in the establishment of giant corporations that could assemble the resources to develop, publish, score, and report the results of testing to a large clientele. Centralization improved the quality of tests and the establishment of standards for test design. As individual researchers and teams of psychologists continue to design instruments to meet current needs, the high quality of these newer tests can be attributed to the improvements and refinements made over the years and to the increased knowledge of test design and validation (Cronbach, 1990).

Head Start and the War on Poverty

Prior to the 1960s, medical doctors, psychologists, and other professionals serving children developed tests for use with infants and preschool children. Developmental measures, IQ tests, and specialized tests to measure developmental deficits were generally used for noneducational purposes. Child study researchers tended to use observational or unobtrusive methods to study the individual child or groups of children. School-age children were assessed to measure school achievement, but this type of test was rarely used with preschool children.

After the federal government decided to improve the academic performance of children from low-income homes and those from non-English-speaking backgrounds, test developers moved quickly to design new measurement and evaluation instruments for these preschool and school-age populations.

In the late 1950s, there was concern about the consistently low academic performance of children from poor homes. As researchers investigated the problem, national interest in improving education led to massive funding for many programs designed to reduce the disparity in achievement between poor and middle-class children. The major program that involved preschool children was Head Start. Models of early childhood programs ranging from highly structured academic, child-centered developmental approaches to more traditional nursery school models were designed and implemented throughout the United States (White, 1973; Zigler & Valentine, 1979). Developers of Head Start programs were influenced by the work of Urie Bronfenbrenner, one of the cofounders of Head Start, who studied the impact of environments on children's development and learning (Bronfenbrenner, 2004). The emphasis on family involvement in Head Start was largely due to Bronfenbrenner's work (1995, 2004).

All programs funded by the federal government had to be evaluated for effectiveness. As a result, new measures were developed to assess individual progress and the programs' effectiveness (Laosa, 1982). The quality of these measures was uneven, as was comparative research designed to examine the overall effectiveness of Head Start. Nevertheless, the measures and strategies developed for use with Head Start projects added valuable resources for the assessment and evaluation of young children (Hoepfner, Stern, & Nummedal, 1971).

Other federally funded programs developed in the 1960s, such as bilingual programs, Title I, the Emergency School Aid Act, Follow Through, and Home Start, were similar in effect to Head Start. The need for measurement strategies and assessment tools to evaluate these programs led to the improvement of existing tests and the development of new ones to evaluate their success accurately.

Legislation for Young Children with Disabilities

Efforts to improve education for children who do not experience typical development were a major focus in the last three decades of the 20th century. Prior to legislation to address atypical development, young children with disabilities were served in separate classrooms in special education programs. The first law passed in 1975 started a new approach to identifying children with special needs and designing individual plans for their education. A series of laws were passed to develop suitable programs for these children. Later, infants and toddlers were also included to provide early identification and efforts to minimize the disabilities.

PL 94-142 Perhaps the most significant law affecting the measurement of children with disabilities was Public Law (PL) 94-142, the Education for All Handicapped Children Act, passed by Congress in 1975. This law mandated that all children ages 6 to 21 with special needs receive services within public schools. The law further required the use of nondiscriminatory testing and evaluation of these children.

PL 99-457 Many of the shortcomings of PL 94-142 for young children were addressed in PL 99-457 (Education of the Handicapped Act Amendments), passed in 1986. The newer law authorized two new programs: the Preschool Grant Program, mandated for children 3 to 5 years old, and the Early Intervention State Grant Program for infants and toddlers. Under PL 94-142, the state could choose whether to provide services to children with disabilities between ages 3 and 5. Under PL 99-457, states had to prove they were meeting the needs of all children with disabilities ages 3 to 21 if they wished to receive federal funds under PL 94-142. These two laws were later amended, combined, and renamed the Individuals with Disabilities Education Act (IDEA).

INDIVIDUALS WITH DISABILITIES EDUCATION IMPROVEMENT ACT OF 2004

The U.S. Congress reauthorized the Education for All Handicapped Children Act of 1975 in 1997 (IDEA). The reauthorization of the 1997 law required special education students to participate in state tests, and states were to report the results of those tests to the public. Many states were slow to comply with the law, and there were no consequences for states that did not comply. The most recent amendments to IDEA were passed in December 2004, called the Individuals with Disabilities Education Improvement Act of 2004 (IDEA 2004). Final regulations were published in 2006 that included Part B for children ages 3 to 21 and, in September 2011, Part C regulations for infants and toddlers (National Dissemination Center for Children with Disabilities, 2012).

IDEA 2004 guarantees all children 3 to 21 years old with disabilities the right to a free, appropriate public education and placement in the least restrictive learning environment under the Part B program. This means that preschool services must also be provided for children under age 6. For these children, the public schools have the legal responsibility for implementing early childhood programs for children with disabilities, whether the services take place in a public school or another setting such as private child-care centers or Head Start (Guralnick, 1982; Spodek & Saracho, 1994; U.S. Congress, 2004).

The law also includes the Part C program, or Early Intervention Program, ensuring early intervention services for all children with disabilities from birth through age 2 and their families. All participating states must provide intervention services for every eligible child (McCollum & Maude, 1993; Meisels & Shonkoff, 1990; Shackelford, 2006).

The implications of these laws were far reaching. Testing, identification, and placement of students with intellectual disabilities and other disabilities were difficult. Existing tests were no longer considered adequate for children with special needs. Classroom teachers had to learn the techniques used to identify students with disabilities and determine how to meet their educational needs (Kaplan & Saccuzzo, 1989). Measures had to be revised or developed to assess infants, toddlers, and preschool children.

One Family's Experience with Head Start

Rosa is a graduate of the Head Start program. For 2 years, she participated in a class housed in James Brown School, a former inner-city school that had been closed and remodeled for other community services. Two Head Start classrooms were in the building, which was shared with several other community agencies serving low-income families. In addition to learning at James Brown School, Rosa went on many field trips, including trips to the zoo, the botanical garden, the public library, and a nearby McDonald's restaurant.

This year, Rosa is a kindergarten student at West Oaks Elementary School with her older brothers, who also attended Head Start. Next year, Rosa's younger sister, Luisa, will begin the program. Luisa looks forward to Head Start. She has good memories of the things she observed Rosa doing in the Head Start classroom while visiting the school with her mother.

Luisa's parents are also happy that she will be attending the Head Start program. Luisa's older brothers are good students, which they attribute to the background they received in Head Start. From her work in kindergarten, it appears that Rosa will also do well when she enters first grade.

The law requires that a team of teachers, parents, diagnosticians, school psychologists, medical personnel, specialists (e.g., occupational or physical therapists), school administrators, and perhaps social workers or representatives of government agencies or institutions be used to determine eligibility and placement of children with disabilities. When appropriate, the child must also be included in the decision-making process. Once a child is determined to be eligible for the Part C program (for infants and toddlers) or the Part B program (for children 3 to 21 years of age), an individualized plan is developed by the team. For infants and toddlers, this plan is called the Individualized Family Services Plan (IFSP). For children in the Part B program, it is called the Individualized Education Program (IEP).

MAINSTREAMING, LRE, INCLUSION, AND NATURAL ENVIRONMENTS The term **mainstreaming** came to define the requirement that a child be placed in the **least restrictive environment (LRE)**. This meant that as often as possible, a child would be placed with children with typical development, rather than in a segregated classroom for students in special education. How much mainstreaming was beneficial for the individual student? The question was difficult to answer. In addition, the ability of teachers to meet the needs of students with and without disabilities simultaneously in the same classroom is still debated. Nevertheless, classroom teachers were expected to develop and monitor the educational program prescribed for students with disabilities (Clark, 1976).

The PL 94-142 amendments required that the individual educational needs of young children with disabilities must be met in all early childhood programs (Deiner, 1993; McCollum & Maude, 1993; Wolery, Strain, & Bailey, 1992). These laws advance the civil rights of young children and have resulted in the inclusion of young children with disabilities in preschool and school-age programs. As a result, the concept of mainstreaming has been replaced by integration, or **inclusion**, whereby all young children learn together with the goal that the individual needs of all children will be met (Krick, 1992; Wolery & Wilbers, 1994). The efforts of these programs and their services must be assessed and evaluated to determine whether the needs of children are being met effectively (Early Head Start National Resource Center, 2011).

Early childhood inclusion embodies the values, policies, and practices that support the right of every infant and young child and his or her family, regardless of ability, to participate in a broad range of activities and contexts as full members of families, communities, and society. The desired results of inclusive experiences for children with and without disabilities and their families include a sense of belonging and membership, positive social relationships and friendships, and development and learning to reach their full potential. The defining features of inclusion that can be used to identify high quality early childhood programs and services are access, participation, and supports (DEC/NAEYC, 2009, p. 2).

The term *inclusion* for infants and toddlers means that early intervention services should be provided in the most *natural environment*. Natural environments may include a child's home, a child-care center, or any other setting in which infants and toddlers typically participate.

The identification and diagnosis of students with disabilities is the most complex aspect of IDEA 2004. Many types of children need special education, including students with intellectual disabilities, physical disabilities, vision disabilities, speech impairments, auditory disabilities, learning disabilities, emotional disturbances, and autism, as well as students who are gifted. Children may have a combination of disabilities. The identification and comprehensive testing of children to determine what types of disabilities they have and how best to educate them requires a vast array of assessment techniques and instruments. Teachers, school nurses, and other staff members may be involved in initial screening and referral, but the extensive testing used for diagnosis requires professionals who have been trained to administer assessment tools in a variety of areas including psychological tests, developmental assessments, and vision and hearing screenings (Mehrens & Lehmann, 1991).

How to measure and evaluate young children with disabilities and the programs that serve them is a continuing challenge (Cicchetti & Wagner, 1990). The design of measures to screen, identify, and place infants and young children in intervention programs began with the passage of PL 94-142 and was extended under PL 99-457. Many of these instruments and strategies, particularly those dealing with developmental delay, were also used with preschool programs serving children with typical development.

As children with disabilities were served in a larger variety of settings, such as preschools, Head Start programs, child-care settings, early intervention programs, and hospitals, early childhood educators from diverse backgrounds became more involved in determining whether infants and young children were eligible for services for special needs. Many questions were raised about appropriately serving young children with diverse abilities. Meeting the developmental and educational needs of infants and preschool children with disabilities and at the same time providing inclusive services was a complex task. How should these children be grouped for the best intervention services?

When children with and without disabilities were grouped together, what were the effects when all of them were progressing through critical periods of development? Not only was identification of young children with disabilities more complex, but evaluation of infant and preschool programs providing intervention services was also more challenging.

PL 101-576 The Americans with Disabilities Act (ADA), passed in 1990 (Stein, 1993), had an additional impact on the education of young children with disabilities. Under the ADA, all early childhood programs must be prepared to serve children with special needs. Facilities and accommodations for young children, including outdoor play environments, must be designed, constructed, and altered appropriately to meet the needs of young children with disabilities.

Issues and Trends in Assessment in Early Childhood Education

The 1980s brought a new reform movement in education, accompanied by a new emphasis on assessment. The effort to improve education at all levels included the use of standardized tests to provide accountability for what students are learning. Minimum competency tests, achievement tests, and screening instruments were used to ensure that students from preschool through college reached the desired educational goals and achieved the minimum standards of education that were established locally or by the state education agency. As we continue in a new century, these concerns have increased.

In the 1990s, many schools improved the learning environment and achievement for all children; nevertheless, a large percentage of schools were still low performing in 2000 and 2001. Inadequate funding, teacher shortages, teachers with inadequate training, aging schools, and poor leadership affected the quality of education (Wortham, 2002).

During the 2000 presidential campaign, candidate George W. Bush named quality education as one of the goals of his presidency. After his election, President Bush worked for legislation that would improve education for all children. After months of dialogue and debate, Congress passed a new education act in December 2001. The No Child Left Behind Act (NCLB), formerly known as the Elementary and Secondary Education Act (ESEA), was signed into law on January 8, 2002, and had an impact on testing required by individual states. In addition to other provisions, all states were required to administer tests developed by the state and to set and monitor adequate yearly progress (Moscocco, 2001; Wortham, 2002).

President Bush was also committed to strengthening early childhood programs. The early childhood education projects initiated by the Bush administration in 2002 stressed the importance of improving early childhood programs. Fortunately, child-outcome standards were also developed by professional organizations in addition to state education agencies. For example, the National Council for the Social Studies (1994) issued *Curriculum Standards for the Social Studies*. Improved Head Start Performance Standards published in 2009 included children from birth to age 5 (Head Start, 2009). Current Head Start Performance Standards (HHS/ACF/OHS, 2016) clarify that eligibility requirements apply to infants and toddlers under age 3 and preschoolers from age 3 to the age required

Search and Share 1.1

New Head Start Performance Standards

Explore the “Policy & Regulations” page of the Head Start website by searching for “Head Start” online; then, on the home page of the website, select the “Policy & Regulations” tab toward the top of the screen. On this page, you can learn more about the new Head Start Performance Standards. Share three regulations that are new to you with a classmate. How might they affect services for young children in Head Start?

for school entrance. These standards and others provide guidelines for early childhood educators as they strive to improve programs and experiences for young children.

By 2005, standards that included early childhood were available in many states. Some were in response to NCLB, but others were part of the emerging efforts to establish state and national standards for development and learning (Seefeldt, 2005). During the following decade, NCLB was used as a blueprint for proposed revisions by President Barack Obama’s administration. On December 10, 2015, the Every Student Succeeds Act (ESSA) was signed by President Obama, which reauthorized the ESSA. Two provisions of ESSA included sustaining and expanding early childhood education and annual statewide assessment of all students (U.S. Department of Education, 2017b).

Issues in a New Century: The Accountability Era

The major issue in education today is the idea of accountability. Even before the rules and regulations surrounding the legislation for NCLB were issued, there were growing concerns about accountability. The interest in developing more responsibility for student results evolved from a perception that states had been evaluating school systems based on available resources rather than student performance. NCLB addressed student performance, public reporting of achievement results, consequences for poor student performance, and continuous improvement. Individual states were also responding to the need for accountability by moving from a focus on curriculum offerings and funding levels to standards-based accountability. States had set standards, developed assessment systems, and assigned responsibilities for meeting the goals and designating rewards and sanctions to achievement levels. If states wanted to continue getting benefits under NCLB, they had to follow the new policies for accountability (National Council of State Legislatures, 2009).

ISSUES WITH NCLB The requirements of NCLB were to be implemented by 2006. In the summer of 2006, it was evident that there were difficulties in complying with the law. An early issue was the requirement that schools report test scores by racial subgroup. Nearly two dozen states had been granted waivers in reporting by subgroups. Other schools avoided the problem by determining that the numbers of students in racial subgroups were too small to be statistically significant; their scores were not included (Rebora, 2006).

The law also provided that states would implement standards-based assessments in reading and math by 2006. States were required to test students in reading and math annually in grades 3 to 8 and once again in grades 10 to 12 (New America Foundation Feedback, 2013). Ten states were notified in 2006 that a portion of state administrative funds would be withheld for failing to comply fully with NCLB. Twenty-five states



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Assessments can be conducted while young children engage in classroom activities.

might also lose a portion of their aid if they did not comply fully with NCLB and comply with the testing requirement by the end of the school year. The monetary penalties caught many states by surprise. In addition, states had difficulty providing the extensive documentation required to demonstrate that the tests met that state's academic standards (Olson, 2006). Further, states had to demonstrate how they were including students with disabilities and English language learners (ELLs) in their testing system. This included developing alternative assessments when needed. When combined with concerns about testing young children in the early childhood years, NCLB had an impact on all populations of students, including those in the preschool years.

The reauthorization of NCLB was due in 2007. Congress had already blocked action on the reauthorization until after the 2008 election. The Obama administration indicated in 2009 that the rewriting of the law would focus on teacher quality and academic standards, and that more attention would be given to help failing schools and students. The Commission on No Child Left Behind (2009) urged Secretary of Education Arne Duncan to retain some core elements of NCLB. Regardless of the direction of continuing reform in education, the federal government continued to expand its influence on accountability and has also encouraged the movement from individual state standards to national standards (Dillon, 2009; *The New York Times*, 2009).

No changes were made to NCLB until 2014. States were increasingly concerned about the requirement that 100 percent of students be proficient in English language arts and math by 2014. In response to educators' concerns, then U.S. Education Secretary Arne Duncan allowed some states to have waivers from some requirements of NCLB. The resignations of key players in Congress who supported a strong role for the government in education and anxiety about the election in 2016 led to the passage of the Every Student Succeeds Act (ESSA). Subsequently, NCLB was replaced by ESSA in December 2015 (Tooley, 2015). The requirements under ESSA are similar to the policies expected that are on waivers under NCLB. States are allowed to develop their own accountability rating systems, but states were expected to help struggling schools.

Concerns about Assessing Infants and Toddlers

Screening of infants and toddlers in the early months is very important to monitoring development. Likewise, early identification of developmental delays or disorders is critical to the well-being of infants and their families. Delayed development may indicate an increased risk of other medical conditions or disorders.

There are challenges in early identification of disabilities, as early detection rates are lower than their actual numbers. One possible cause is that few pediatricians use effective strategies to screen their patients for developmental problems (American Academy of Pediatrics [AAP], 2002). The AAP recommended a process in 2006 for health care professionals to develop a practice to conduct surveillance screening from birth to beyond age 3. Development would be given attention at regular pediatric appointments (Pinto-Martin, Dunkle, Fliedner, & Landes, 2005).

Parents have a critical role in developmental screening. Consultants working with infant and toddler caregivers can provide training for observing children's development and communicating with parents about questions they may have about their child's development.

Parents can be taught to engage in screening activities in the home. If a child is showing signs of hearing loss, for example, the parent can follow steps to determine whether the child is hearing adequately. Parents can also be given information on developmental guidelines so that they can contact their health care professional if they notice signs of delay (Ferrara, 2013).

Concerns about Assessing Young Children in Early Childhood Settings

The increased use of testing at all levels has been an issue in American education, but the assessment of young children is of particular concern. Standardized tests and other assessment measures are now being used in preschool, kindergarten, and primary grades to determine whether children will be admitted to preschool programs, promoted to the next grade, or retained. During the late 1980s and early 1990s, tests were used to determine whether students should be promoted from kindergarten to first grade or placed in a "transitional" first grade. Although this practice is now less popular, it persists in some school districts and states (Smith, 1999). In 2000, the National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE) was concerned about the continuing trend to deny children's entry to kindergarten and first grade. They issued a position statement, "Still! Unacceptable Trends in Kindergarten Entry and Placement" (NAECS/SDE, 2000). This continuing effort to advocate appropriate assessment of very young children was endorsed by the Governing Board of the National Association for the Education of Young Children (NAEYC, 2001).

By 2006, states used a wide range of types of screenings and assessments with young children entering public school. Screening tests were used in most states for hearing and vision, as were developmental screenings and readiness tests. Behavior screenings are also widely used as part of the preschool and kindergarten entrance activities. Many states conduct screening to identify children at risk for failing to succeed in

school and/or for referral to determine developmental disorders or disabilities. Some states met the criteria for developmentally appropriate assessments first discussed by NAEYC, whereas others did not. For example, California required observation and portfolio materials in preschool assessments. On the other hand, Georgia students were tested for first-grade readiness at the end of the kindergarten year to determine grade placement (Education Commission of the States, 2006). More information on these topics is provided in later chapters.

The announcement by President Bush in 2003 that all Head Start students would be given a national standardized test assessment raised new concerns. At issue were the validity and reliability of tests for preschool children (Nagle, 2000) and whether such “high-stakes” testing should be used to evaluate the quality of Head Start programs (Shepard, Kagan, Lynn, & Wurtz, 1998). Policy makers had to address these and other concerns about appropriate assessment of young children in their decisions about how to evaluate preschool programs that receive federal funding (McMaken, 2003).

In February 2003, a large group of early childhood experts wrote to their congressional representatives to express their concerns about the impending test. They made the following points:

1. The test is too narrow.
2. The test may reduce the comprehensive services that ensure the success of Head Start.
3. The test is shifting resources away from other needs within Head Start.
4. Testing should be used to strengthen teaching practices, not to evaluate a program, and should in no way be linked to program funding (Fair Test, 2003; NAEYC, 2004).

In September 2003, the new test, the *National Reporting System (NRS)* (U.S. Department of Health and Human Services Head Start Bureau, 2003), was administered by the Head Start Bureau in the Department of Health and Human Services (HHS) Administration for Children and Families to more than 400,000 children ages 4 and 5; it continued to be administered each year. In 2005, when Head Start funding was being considered, the Government Accountability Office (GAO) issued a report on the NRS. The report stated that the NRS had not shown that it provided reliable information on children’s progress during the Head Start program year, especially for Spanish-speaking children. Moreover, the NRS had not shown that its results were valid measures of the learning that took place in the program. In its recommendations, the GAO required that the Head Start Bureau establish validity and reliability for the NRS. As a result, the NRS was not to be used for accountability purposes related to program funding (Crawford, 2005; Government Accountability Office, 2005). Because the Bush administration reportedly intended to use the NRS to establish accountability requirements similar to those for NCLB, this GAO finding essentially halted the use of the test for that purpose. The NRS was suspended in 2007.

Concerns about Assessing Young Children with Cultural and Language Differences

A concurrent concern related to current trends and practices in the assessment of young children is the question of how appropriate our tests and assessment strategies are in terms of the diversity of young children attending early childhood programs. Socioeconomic groups are changing dramatically and rapidly in our society, with an expansion of families living in poverty and a corresponding shrinking of the middle class. At the same time, an

increase in minority citizens has occurred as the result of the continuing influx of people from other countries, especially those in Southeast Asia and Latin America. The National Center for Educational Statistics (NCES) reports that in the 2014–15 school year, 9.4% of students (or 4.6 million students) were English language learners (ELLs), of which 16.7% were in kindergarten (NCES, 2017). In addition, approximately 460 languages are represented in schools and programs in the United States (Biggar, 2005; Lopez, Salas, & Flores, 2005). Currently, the most prevalent languages are Spanish, Arabic, Chinese, Vietnamese, Hmong, and Somali (NCES, 2017). Assessment of the developmental progress of children from these groups is particularly important if their learning needs are to be identified and addressed.

Evidence shows that standardized test scores are highly correlated to parents' occupations and level of education, the location of the student's elementary school, and the family's income bracket. Moreover, students from limited English backgrounds tend to score lower on reading and language fluency tests in English. They typically perform better on computational portions of mathematics tests (Wesson, 2001) because math tests may be less dependent on English fluency. The fairness of existing tests for children who are school disadvantaged and linguistically and culturally diverse indicates the need for alternative assessment strategies for young children (Biggar, 2005; Goodwin & Goodwin, 1993, 1997). A major issue in the 21st century is appropriate measurement and evaluation strategies that will enhance, rather than diminish, their potential for achievement.

The history of assessment of minorities who are bilingual students or learning English as a second language is one of potential bias. Children have been, and continue to be, tested in their nondominant language (English) or with instruments that were validated on Anglo, middle-class samples of children. As a result, many Hispanic preschool children were and are still regularly diagnosed as being developmentally delayed or speech/language delayed or as having some other type of disability and placed in special education (Lopez et al., 2005). The issue of appropriate assessment of these children was addressed by court cases such as *Diana v. California State Board of Education* (1968) and *Lau v. Nichols* (1974). More recently, NCLB and Head Start have addressed the issue of testing ELLs (Crawford, 2005; David, 2005; Government Accountability Office, 2005).

The disproportionality of minority students in special education is often related to language and cultural differences. Some of the issues addressed in the rising numbers of minority children being referred to special education include inconsistent methods of determining home language and English proficiency, confusion about the purpose of language screening instruments, and a need for more teacher training in meeting the needs of culturally and linguistically diverse children and families (Abebe & Hailemariam, 2008; Hardin, Roach-Scott, & Peisner-Feinberg, 2007). Most recently, researchers have advocated for systemic change in the public school system that would support a more equitable approach for identifying and placing children in special education (Sullivan, Artiles, & Hernandez-Saca, 2015). The model they propose is built around Bronfenbrenner's theoretical model (Bronfenbrenner, 1995, 2004) and would include a leadership consulting team to work with local stakeholders (e.g., teachers, administrators) to understand the local system of services and then design and implement changes that would ensure greater equity.

Increasing concerns about overidentification of minority children is addressed in two significant books. *Why Are So Many Minority Students in Special Education? Understanding Race and Disability in Schools* (Harry & Klingner, 2005) is one effort to explain the problem. The authors address the issue of the disproportionate representation of minorities in special education. *Racial Inequity in Education* (Losen & Orfield, 2002) addresses many factors, including language, high-stakes testing, inappropriate and inadequate special education for minority children, and the role of the federal government.

On December 19, 2016, the U.S. Department of Education published final regulations to address this disparity and establish greater equity as an amendment under IDEA 2004, which went into effect on January 18, 2017. The new regulation, *Assistance to States for the Education of Children with Disabilities; Preschool Grants for Children with Disabilities*, describes a standard methodology for states to:

... determine whether significant disproportionality based on race and ethnicity is occurring in the State and in its local educational agencies (LEAs); clarify that States must address significant disproportionality in the incidence, duration, and type of disciplinary actions, including suspensions and expulsions, using the same statutory remedies required to address significant disproportionality in the identification and placement of children with disabilities; clarify requirements for the review and revision of policies, practices, and procedures when significant disproportionality is found; and require that LEAs identify and address the factors contributing to significant disproportionality as part of comprehensive coordinated early intervening services (comprehensive CEIS) and allow these services for children from age 3 through grade 12, with and without disabilities (U.S. Department of Education, 2016, p. 92376).

Another concern about testing children with cultural and language differences is the process of screening preschool children who fit into this category. A problem of correctly screening young children who are learning English may lead to the underidentification of children who have special needs or to the overidentification of special needs because English language delays are misdiagnosed as a disability (NAEYC, 2005a). Recommendations were made by NAEYC and the Division for Early Childhood of the Council for Exceptional Children (2007), and other national organizations for appropriate screening and assessment procedures and program accountability.

The impact of NCLB on testing ELLs resulted in the development of new English language proficiency tests based on new standards adopted by each state. More importantly, the tests measured the reading, writing, speaking, and listening skills of ELLs (Zehr, 2006). In the summer of 2006, five states had failed to meet the U.S. Department of Education's deadline to have tests in place. While some states designed their own tests, other states adopted tests designed by consortia or testing corporations. Nevertheless, because test development and implementation were still in the beginning stages, little was known about the validity and reliability of the tests and whether the tests met the requirements of the law. The New York example reveals the complexity of the assessment of ELLs. The New York State test was designed to measure language acquisition, whereas the tests meeting NCLB requirements measured English language skills. This was true for bilingual and ELL programs throughout the United States prior to NCLB. It would take many years to develop and validate tests that would resolve how to assess the language skills of limited-English speakers that were comparable with tests for English-speaking students.

When the NCLB was scheduled for reauthorization in 2007, it was estimated that ELL students' performance was 20% to 30% below that of non-ELL students. Legislators proposed giving schools more time for ELLs to meet the standards. As the numbers of ELLs continued to increase, constant changes meant the ELL students' status was unstable. ELL students' status changed as new language learners entered school. Differences in learning rates in acquiring English made proficiency a complex issue (DeVoe, 2007).

By 2011, four consortia of states developed ELL tests to rigorous state content standards. The tests were very similar. As some states implemented these tests, the issues of adequate English mastery continued. However, because the tests emphasized formative development, educators had hopes that test results would be constructive in determining student strengths and needs (Bunch, 2011).

Assessment of young children who are from families that are culturally and linguistically diverse must include many dimensions of diversity. The many variations within communities and cultures must be considered, among them the educational background of the parents and the culture of the immediate community of the family. These **funds of knowledge** can help the assessment process be more authentic because they contribute information that the children and families bring with them to the education settings (Moll, Amanti, Neff, & Gonzalez, 1992). Congruence between the individual cultural perceptions of the assessors and the children being assessed, even when both are from the same culture or language population, must also be considered in order to have more authentic information about children's skill development (Barrera, 1996). Many types of information, including the child's background and the use of assessments, must be combined to determine a picture of the child that reflects individual, group, and family cultural characteristics (Lopez et al., 2005).

Concerns about Assessing Young Children with Disabilities

The use of testing for infants and young children with disabilities cannot be avoided. Indeed, Meisels, Steele, and Quinn-Leering (1993) reflected that not all tests used were bad. Nevertheless, Greenspan, Meisels, and the Zero to Three Work Group on Developmental Assessment (1996) believed that assessments used with infants and young children were borrowed from assessment methodology used with older children that does not represent meaningful information about their developmental achievements and capacities. Misleading test scores were being used for decisions about services, educational placements, and intervention programs. These developmental psychologists propose that assessment should be based on current understanding of development and use structured tests as one part of an integrated approach that includes observing the child's interactions with trusted caregivers. Assessment should be based on multiple sources of information that reflect the child's capacities and competencies and better indicate what learning environments will best provide intervention services for the child's optimal development.

Play-based assessment is one major source of information among the multiple sources recommended. Play assessment is nonthreatening and can be done unobtrusively. Moreover, during play, children can demonstrate skills and abilities that might not be apparent in other forms of assessment. Children's ability to initiate and carry out play schemes and use play materials can add significant information (Fewell & Rich, 1987; Segal & Webber, 1996). In transdisciplinary play-based assessment, a team that includes parents observes a child at play. Each member of the team observes an area of development. During the assessment, the child's developmental level, learning styles, patterns of interaction, and other behaviors are observed (Linder, 1993, 2008).

NCLB and ESSA have had an impact on curriculum and assessment of children with disabilities. Although identification of children can begin very early in life, the needs of the children as they enter public education are not usually identified until first grade. However, during the last 10 years, the nature and objectives of kindergarten have changed because of advances in knowledge about what young children are capable

of learning and the advent of the standards-based accountability movement. Kindergarteners are taught and tested on the mastery of academic standards. This change in expectations has affected the kindergarten year for children at risk for learning disabilities. The kindergarten year formerly was used to work with at-risk children and refer them for testing at the end of the year. When they reached first grade, they would be referred for identification and possible special education services. Children with disabilities or those who are at risk for learning problems now need identification and services earlier than first grade. Identification of disabilities and referral for services should now be considered for the kindergarten year, even if some disabilities are difficult to identify in early childhood (Litty & Hatch, 2006). While the policies for identifying and serving young children with disabilities under IDEA 2004 have not changed, the Office of Special Education Programs issued a statement in January 2017 that outlined in detail the importance of examining the individual needs of young children and securing the most appropriate free public education needed for school success (U.S. Department of Education, Office of Special Education Programs, 2017).

NCLB, and subsequently ESSA, also added accountability measures to IDEA. School districts must test at least 95% of students with disabilities and incorporate their test scores into school ratings. There has been strong public reaction to the inclusion of special education students in state testing and reporting. Some policy makers see this provision as an important step in every child receiving a high-quality education. Critics worry that the law is not flexible enough to meet the individual needs of students with disabilities. Many teachers feel that special education students should not be expected to meet the same set of academic content standards as regular education students. These issues were yet to be resolved when the final regulations for IDEA 2004 were published in August 2006 (*Education Week*, n.d.; U.S. Department of Education, 2006).

Since 2006, work has continued to address the issue of identifying and serving students with learning disabilities. The focus of this effort has been to find more flexible and research-based strategies for both identifying students who need intervention services and better serving students with quality instruction and evaluation (Division for Early Childhood of the Council for Exceptional Children, 2007). Two models for a more inclusive instructional process for all students are Response to Intervention (RTI) and Universal Design for Learning (UDL).

RTI addresses all student needs regardless of whether students have been identified as learning disabled. It is a schoolwide, multilevel prevention system to improve student achievement and reduce behavior problems. Although its first component is to identify students at risk of poor success in learning, it is a prevention program for all students (Burns & Coolong-Chaffin, 2006; Millard, 2004). There are three levels of prevention in RTI, and states, districts, and schools can have multiple tiers within these three levels of instruction to meet the needs of students. All students begin at the first tier. Students who need more targeted education are served in the second tier. Students who need intensive intervention are served in the third tier. This third tier can include special education services.

The RTI model seeks to match students with the most effective instruction. The core features of RTI are high-quality classroom instruction, research-based instruction, classroom performance, universal screening, continuous progress monitoring during interventions, and fidelity measures (Millard, 2004). The essential components of the RTI system are screening, progress monitoring, the schoolwide system prevention system discussed earlier, and data-based decision making where the information from screening and prevention efforts is used to adjust the type of responsiveness based on

Search and Share 1.2

Response to Intervention in Early Childhood

Search online for the NAEYC website. On the NAEYC website's home page, select the tab "Topics" toward the top of the screen. Then, from the dropdown menu, select "Response to Intervention" to learn about the components of the *Frameworks for Response to Intervention in Early Childhood: Description and Implications*. What do you think is the most important aspect of RTI for young children? Why?

the student's response to instruction (National Center on Response to Intervention, n.d.). In 2013, a joint position statement titled *Frameworks for Response to Intervention in Early Childhood: Description and Implications* was issued by leading early childhood professional organizations (Division for Early Childhood of the Council for Exceptional Children [DEC], National Association for the Education of Young Children [NAEYC], & National Head Start Association [NHSA], 2013). This statement outlines the components of RTI and describes how they interface with early childhood education services to promote positive outcomes for children.

UDL also seeks to include all kinds of students, including those with learning disabilities, English language barriers, emotional or behavior problems, lack of interest or engagement, or sensory and physical disabilities. UDL is based on the need for multiple approaches to instruction that meet the needs of diverse students (Center for Applied Special Technology [CAST], 2009). It applies recent neuroscience research and uses technology to make learning more effective for all students. The curriculum includes customized teaching that implements multiple means of representation, multiple means of action and expression, and multiple means of engagement (CAST, 2009).

Trends in a New Century

Current practices for assessing young children have evolved over time. Technology, new and updated assessment tools, and evidence indicating the best approach to assessing children have brought about new trends. Some of the key trends are described below.

AUTHENTIC AND PERFORMANCE ASSESSMENT Assessment is in a period of transition. Teachers of young children are moving from more traditional strategies of assessing for knowledge and facts to assessing the students' ability to reason and solve problems. Despite the demands for accountability for addressing early childhood standards, assessments provide a variety of methods for children to demonstrate what they understand and can do.

A broader view of assessment has incorporated a multidimensional approach to measurement, as described earlier in the sections on concerns about assessment of children from diverse populations and children with disabilities. It is now felt that too much attention has been given to the use of standardized tests, rather than to a multidimensional approach that uses many sources of information. The more inclusive practice of assessment, which includes work samples, observation results, and teaching report forms, is called **alternative assessment**. These alternatives to standardized tests measure how students can apply the knowledge they have learned (Blum & Arter, 1996; Maeroff, 1991). Within this evolution in the purposes for assessment and interpretation of assessments is the move to authentic and performance assessments.

Authentic assessments must have some connection to the real world; that is, they must have a meaningful context. They are contextual in that they emerge from the child's accomplishments. **Performance assessments** permit the child to demonstrate what is understood through the performance of a task or activity (Wortham, 1998).

Performance assessment as applied through the use of portfolios provides a multifaceted view of what the young child can understand and use. Performance assessment is used because teachers in early childhood programs seek information about the child's development and accomplishments in all domains. Performance assessment combined with other assessments provides a longitudinal record of change in development, rather than an assessment of a limited range of skills at a particular time. It is appropriately used with infants, young children, school-age children, children from diverse populations, and children with disabilities (Barrera, 1996; Meisels, 1996; Wortham, 1998).

Pedagogical documentation is another form of performance assessment. First developed in Reggio Emilia schools in Italy and now widely used in the United States, pedagogical documentation is a process of collecting and displaying children's work on projects to assess their skill development and instructional needs (Wurm, 2005). More about pedagogical documentation is discussed in Chapter 8.

This broader view of assessment in early childhood programs is echoed by the organizations that endorsed and supported the *Guidelines for Appropriate Curriculum Content and Assessment in Programs Serving Children Ages 3 through 8*, a position statement of the NAEYC and the NAECS/SDE adopted in 1990 and renewed in 2000 and 2001 (NAEYC, 1992; NAECS/SDE, 2000). These guidelines proposed that the purpose of assessment is to benefit individual children and to improve early childhood programs. Appropriate assessment should help enhance curriculum choices, help teachers collaborate with parents, and help ensure that the needs of children are addressed appropriately. Rather than being narrowly defined as testing, assessment should link curriculum and instruction with program objectives for young children (Hills, 1992). Authentic and performance assessments provide dynamic assessment approaches that benefit the child, parents, caregivers, and teachers.

Finally, studies conducted by the Division for Early Childhood of the Council for Exceptional Children, the National Research Council, the National Goals Panel, and the National Association for the Education of Young Children focused on three big ideas shared by the organizations. The first big idea was that assessment must be purposeful. This was in response to assessments that were used for purposes for which they were not designed. The second big idea was that assessment should be aligned with instruction. This included alignment with curriculum standards. The third big idea was related to the benefits of assessment. Assessments should justify the time taken from instruction and not result in negative consequences for some children (Jiban, 2013).

STANDARDS FOR BEGINNING TEACHERS The era of accountability includes expectations for the appropriate preparation of teachers. Just as states set standards for student curriculum and assessment for diverse children, there are standards for preparing and assessing whether teachers and other professionals are qualified to educate young children.

The Interstate New Teacher Assessment and Support Consortium (INTASC) includes state education agencies and national education organizations. The consortium believes that each state's education system should have a teacher licensing policy that requires teachers to know how and be able to effectively help all students achieve the state standards for students (Council of Chief State School Officers, 2007, 2009).

The Mission of INTASC

The mission of INTASC is to provide a forum for its member states to learn and collaborate in the development of

- Compatible educational policy on teaching among the states.
- New accountability requirements for teacher preparation programs.
- New techniques to assess the performance of teachers for licensing and evaluation.
- New programs to enhance the professional development of teachers (Council of Chief State School Officers, 2007, p. 1).

The *INTASC Model Core Teaching Standards: A Resource for State Dialogue* (INTASC, 2011) discussed what all teachers across all grade levels should know and be able to do to be effective teachers. Subsequently, in 2013, the *INTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0: A Resource for Ongoing Teacher Development* (INTASC, 2013) was released. This tool described the increasing complexity of teaching practice so that educators could understand effective practice across three developmental levels.

The licensing standards for early childhood teachers have been addressed by three organizations: the Association of Teacher Education (ATE), the National Association for the Education of Young Children (NAEYC), and the Association for Childhood Education International (ACEI). A position statement on early childhood teachers was issued by ATE and NAEYC in 1991 (ATE & NAEYC, 1991). The position statement also calls for state early childhood organizations and agencies to develop policies leading to certification that are distinct from policies related to elementary and secondary certification. In addition, policies for early childhood teachers should be congruent across the 50 states.

The *Position Paper on the Preparation of Early Childhood Education Teachers* was issued by ACEI in 1998 (ACEI, 1998). It calls for early childhood specialization to be developed within broader policies for teacher preparation. Early childhood teachers should have a broad and liberal education. Experiences should also include foundations of early childhood education, child development, the teaching and learning process, and provisions for professional laboratory experiences.

NAEYC also developed a position statement on ethical conduct (NAEYC, 2005b). Standards of ethical behavior by early childhood care and education teachers are based on a commitment to

- Appreciate childhood as a unique and valuable stage of the human life cycle.
- Base our work on knowledge of how children develop and learn.
- Appreciate and support the bond between child and family.
- Recognize that children are best understood and supported in the context of family, culture, community, and society.
- Respect the dignity, worth, and uniqueness of each individual (child, family member, and colleague).
- Respect diversity in children, families, and colleagues.
- Recognize that children and adults achieve their full potential in the context of relationships that are based on trust and respect (NAEYC, 2005b, p. 1).

The most recent effort to establish standards for beginning teachers was made by the Council for the Accreditation of Educator Preparation (CAEP). Although the council is charged with accrediting institutions that prepare teachers, the standards themselves are focused on student outcomes. The five standards are as follows:

- Standard 1: Content and Pedagogy
- Standard 2: Clinical Partnerships and Practice
- Standard 3: Candidate Quality, Recruitment, and Selectivity
- Standard 4: Program Impact
- Standard 5: Provider Quality Assurance and Continuous Improvement

The standards are complementary with INTASC standards. The relationship between teacher preparation and the impact of teacher instruction is basic to both INTASC and CAEP (CAEP, 2013).

COMMON CORE STANDARDS The Common Core Standards were developed as a result of organizational concerns that test scores for graduation varied widely from state to state. Moreover, students' performance on state tests differed from performance on the National Assessment of Educational Progress (NAEP). Two organizations, the National Governor's Association and the Council of Chief State School Officers, decided to work together to develop a single set of standards and common grading criteria. In 2009, all but four states signed on to the Common Core Standards and promised to help create and implement them by 2014 (Common Core State Standards Initiative, 2010). In 2013, the reviews of the standards were mixed. Some teachers using the standards had positive opinions. One observed that Common Core Standards set standards that were higher than the ones individual states had established on their own. Others praised the standards for being based on the highest-quality research in the field (Toppo, 2012).

There were also many criticisms. Diane Ravitch, a leader in educational reform, suggested that there was no convincing evidence that students would be better prepared for college and success because of the Common Core Standards. She proposed that developers of Common Core Standards made many promises that contained no evidence that the standards could be achieved. She joined others in pointing out that where students were already taking Common Core Standards tests, their scores had plummeted. As well, only 5% of students were able to pass the test (Han, 2013; Ravitch, 2013; Rich, 2013).

Critics also pointed out that a large number of states signed up for the new standards because they were seeking waivers from NCLB or funding for the new program Race to the Top (discussed in the next section).

States complained that preparing teachers for the challenges of preparing students for a more difficult curriculum were such that they needed more time before their professional evaluations reflected the new test scores. Responding to this and other complaints, Secretary of Education Arne Duncan postponed making career decisions about teachers based on the new tests until 2016–17 (Rich, 2013).

In the fall of 2013, some states had pulled out of the Common Core Standards program for various reasons. There were now several sources of tests, leading to some concerns that student achievement could not be compared across states. States were also finding that the new tests were more costly than previous ones, and some states felt that financial restrictions would prevent them from compliance with the technology required by the program. The Common Core Standards curriculum was destined

to face serious challenges as it approached its first year of full implementation in 2014 (Ujifusa, 2015).

RACE TO THE TOP The Race to the Top program was another effort to improve education outcomes that was funded by the American Recovery and Reinvestment Act of 2009. The legislation was designed to stimulate the economy, support job creation, and invest in education. The Race to the Top Fund was a competitive grant for secondary education to reward states that are developing and using innovative strategies that will improve student learning and result in closing achievement gaps, improving high school graduation rates, and preparing students for college.

Race to the Top has four education reform areas:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools (U.S. Department of Education, 2009).

There were 12 recipients in the first group of states that received grants in the first round of grants. At the end of the 2012–13 school year, 6 of the 12 recipients had fully implemented their programs, including teacher and principal evaluation systems. However, as with the difficulties experienced with teacher evaluation in the Common Core Standards program, some states were experiencing delays in developing and putting their teacher and evaluation systems in place. The original states reported teacher concerns with the new evaluation system. However, participating states reported high confidence in the support given to them by the Department of Education. They felt that the Department of Education’s role in monitoring and helping recipients was very successful (Klein, 2013; U.S. Department of Education, 2009).

The Race to the Top – Early Learning Challenge (RTT-ELC) was directed at early childhood programs. This program, related to the Race to the Top program, first accepted applications in 2013. The awards were to go to “states that are leading the way with ambitious yet achievable plans for implementing coherent, compelling, and comprehensive early learning education reform” (U.S. Department of Education, 2013).

The U.S. Department of Education issued a report on Race to the Top in 2015. In that report, a positive overview of Race to the Top focused on success stories, including rising graduation rates and higher passing rates by students taking advanced placement stories (Ujifusa, 2015; U.S. Department of Education, 2015). However, the report neglected to address the issues with teacher evaluations. Declining scores on the National Assessment of Educational Progress (NAEP) were also a problem. A study conducted by the Economic Policy Institute in 2013 examined progress with Race to the Top in the third year of implementation. Among their findings were that the grantee states promised to raise student achievements to unrealistic levels and had to delay design and implementation of teacher evaluation systems due to time factors that prevented their development (Weiss, 2013).

The 2016 election brought a new direction in education at all levels. The new president, Donald Trump, selected Betsy DeVos, a strong supporter of charter schools, as Secretary of Education. In the fiscal year 2018 budget, some existing programs were

eliminated or given reduced funding. A stated goal for the Department of Education was to return decision making to the states and give parents more control over their children's education. The budget included a \$167 million increase for the Charter Schools Program as well as funding for innovative initiatives. More than 30 programs were reduced or eliminated after being designated as better addressed at the state or local level. Secretary DeVos proposed that every state should provide choices and equal opportunity to meet the needs of that state's children (U.S. Department of Education, 2017b).

Summary

The measurement and assessment of children begins very early in the life span. Newborns are tested for their neonatal status, and infant tests designed to assess development begin the trend for testing and assessment in the early childhood years. Assessments in the early childhood years have many purposes; some are beneficial for young children, and others are detrimental.

The advent of measures to assess and evaluate young children's development and learning occurred at the beginning of the 20th century. As the decades passed, significant trends in the study of young children and services and programs implemented for young children have driven the need to develop standardized tests and other measures to evaluate children's progress and program effectiveness.

Many issues surround the testing of young children. Some educators question the validity and reliability of standardized tests used with young children, as well as the purposes for administering tests to children who are culturally and linguistically diverse. At the same time, the use of individual testing and evaluation to identify children with disabilities and provide services for them continues to serve a valuable purpose.

The 21st century brought new issues and trends. The No Child Left Behind (NCLB) law was intended to raise student achievement through policies established when the law was initiated; however, there were difficulties with achieving goals set by NCLB. The ongoing issues with NCLB delayed reauthorization of the law. In the meantime, Common Core Standards that overlap NCLB were developed. The Common Core Standards also encountered difficulties in evaluating teachers and conflicts about waivers related to NCLB. Yet another program, Race to the Top, introduced a competitive grant program to reward schools with innovative strategies to increase student learning. The first cohort of 12 school districts had mixed success at the end of the first year.

The presidential election of 2016 brought major changes to the U.S. Department of Education. With a Republican president and both houses of Congress under Republican control, the future of public education seemed headed in a new direction. In 2017, the implications for the future of education were still unclear, with many factors affecting how children would be taught. Studies of national programs implemented to improve the educational outcomes of minority and low-income students showed that lower

achievement in this population of students persisted regardless of what type of effort was funded at the federal level. The efforts of the Department of Education to return reform efforts to the state and local levels made it unclear how educational transformation would fare. The new Secretary of Education, Betsy DeVos, proposed that any options for improving education should be accountable directly to parents and communities, not to Washington, DC (U.S. Department of Education, 2017a).

Suggested Activities

1. Review a recent journal article on a topic related to current issues in the testing and assessment of young children. The article should have been published within the past 5 years. Describe the major points in the article and your response. Be prepared to share your findings in small groups.
2. What policies are followed in your state regarding the use of standardized tests? What tests are administered in the primary grades? How are they chosen? How are the results used?
3. How does the school district in your community screen preschool children for possible disabilities? What types of assessments are used? If children need further testing to identify specific needs, what process is used? Who conducts the tests with the child?

Key Terms

alternative assessment 20	funds of knowledge 18	observation 2
assessment 2	inclusion 10	pedagogical documentation 21
authentic assessment (authentic performance assessment) 21	least restrictive environment (LRE) 9	performance assessment 21
	mainstreaming 9	screening 3

Selected Organizations

Search for the following organizations online:	National Association for the Education of Young Children
National Child Care Information and Technical Assistance Center	Council of Chief State School Officers
National Conference of State Legislatures	Division for Early Childhood/Council for Exceptional Children
Association for Childhood Education International	

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Chapter 2

How Infants and Young Children Should Be Assessed



Jules Selmes/Pearson Education Ltd



Chapter Learning Outcomes

As a result of reading this chapter, you will be able to:

- 2.1** Define the principles of assessment recommended for all children.
- 2.2** Explain how infants and young children are assessed.
- 2.3** Explain how assessment results are used for instruction and to evaluate the instructional program.
- 2.4** Explain challenges and guidelines in assessing for standards.

In this chapter, appropriate methods of assessing infants and young children will be explained. The focus will be on the future and what assessment should do, as well as how assessments should be conducted and used. Principles and characteristics of quality assessments are described also. A description of how these varied assessment practices can be organized into a comprehensive plan for evaluation, also called an assessment system, will be discussed, followed by how assessment results are used in infant, preschool, and school settings.

The Principles of Assessment for All Children

The goal of the discussion in this part of the chapter is to address the concerns and issues raised about assessing and evaluating infants and young children and to set criteria for higher goals of the process. The objective is not to eliminate established methods and replace them with new ones, but to formulate how to use each method most effectively to serve the needs of individual children. First, criteria for optimal approaches to assessment will be described generally, followed by how assessment should be used for the benefit of infants and young children specifically.

Assessment Should Use Multiple Sources of Information

No matter what strategy is used for assessment, a single method for gathering information is insufficient (Elicker & McMullen, 2013; NAEYC, 2017; Morrison, 2017). Each assessment strategy has strengths and limitations; moreover, a single method provides only one portion of what needs to be known about a child. A variety of strategies provides a comprehensive picture of the child's development and learning from different perspectives, such as that of parents, teachers, and specialists (Feld & Bergan, 2002). Multiple observations are better than a single observation, and other inputs about a child's development, such as parents' and caregivers' views of the child, provide a more complete picture of the child's current functioning and progress. Infant assessment should be meaningful and focus on individual rates of development, interests, and learning styles observed in the child (Elicker & McMullen, 2013; National Research Council, 2008). The child's development and behaviors should be observed in various settings (Caspe, Seltzer, Kennedy, Caprio & DeLorenzo, 2013; Gonzalez-Mena & Stonehouse, 2008).

For older children who have entered school, learning achievement becomes important. The kindergarten and school-age child should be able to demonstrate learning in more than one way and on more than one occasion. Use of a variety of measures of learning ensures an accurate view of the child's accomplishments (McAfee, Leong, & Bodrova, 2004; Morrison, 2017; National Research Council, 2008; Popham, 2013; Shepard, 1989; Wiggins, 1993).

ASSESSMENT SHOULD BENEFIT THE CHILD AND IMPROVE LEARNING The purpose of assessing infants and toddlers is generally to determine whether the child is developing as expected or exhibits delays and therefore needs assistance or intervention. Thus, the purposes of assessment are to benefit the child. Appropriate assessment of infants and toddlers is based on strengths and builds on capabilities rather than what the child cannot do (Moreno & Klute, 2011).

Mara Larson—Kindergarten

The children in Mara's classroom enjoy the center activities that follow each day's math lesson. They don't know that when they are playing counting and number games, Mara is assessing their progress. For example, when they are learning about numerals, Mara might have a lesson in which children use counters to place the correct number of objects under numeral cards up to 10. In another activity, children take turns throwing dice, counting the total, and selecting the correct numeral. A third game is a game board with a spinner. The child spins the wheel and counts out the correct number to match the numeral where the spinner lands. If the answer is correct, the child advances one square on the game board. At first, Mara guides small groups of children in the math activities. When she observes children who have mastered the math objective of the game, she allows them to play the game independently. Mara continues to guide the children she observes having difficulties with the skills used in the activities. Mara also observes children as they participate in math lessons and assigns other tasks that serve as assessments.

When young children enter school, however, assessments can have negative purposes that are not related to the needs and interests of the child. As is discussed elsewhere in this text, tests are sometimes administered to young children to determine whether they can be admitted to a preschool program or promoted in grade. In the primary grades, tests are administered to determine the child's achievement during a school year. When such tests are given to determine the child's progress and to plan appropriate instruction based on what the child has accomplished, the purpose will benefit the child and improve learning. On the other hand, when such tests are used merely for evaluation of the school program and have no implications for how the child will be served, they do not benefit the child and should not be used. Whatever

Gloria Fuentes—Toddler Class

Several weeks into the school year, two children in Gloria's class still speak very little in school. Gloria has questions about their language development. She schedules conferences with parents to get their help in assessing their child's language ability. As a result of the conversations with parents, she discovers that one of the children readily speaks at home but is still shy and uncertain about school. Another child comes from a home where English is not spoken. From her discussions with these parents, Gloria knows more about the children's language needs. Different approaches will be used with each child to help him or her use more language. One will need much attention and emotional support each day to ensure that he or she is confident and secure enough to talk in class. The other will need daily opportunities to learn and use new English words in classroom activities.

assessment strategies are used, the information should be used to guide the child and enhance learning (Copples & Bredekamp, 2009; Guss, et al., 2013; Popham, 2013; Wiggins, 1993, 1998).

ASSESSMENT SHOULD INVOLVE THE CHILD AND FAMILY The family has an important role in assessment. Infants and toddlers are unable to understand their own developmental progress; however, their parents and caregivers are primary sources of information. Although tests can be administered to measure development, a parent's knowledge about the child is essential for a true understanding of the child's developmental characteristics (Darragh, 2009; Popper, 1996; Rocco, 1996). The relationship between caregivers and parents should be collaborative, with all participants contributing to the information about the child and sharing views and concerns that add to the knowledge about the child (Desired Results Access Project, 2015; Elicker & McMullen, 2013; Weiss, Caspe, & Lopez, 2006). Moreover, relationships between caregivers and parents can foster "goodness of fit" or compatibility of child-rearing practices between the school and the home that will benefit the child (Tanyel, 2017).

Preschool, kindergarten, and primary-grade children are more able to understand what they know and what they are able to do. This ability increases with the child's age and maturity. For example, by the time the child is in the primary grades, self-assessment improves. Students can evaluate their progress and have a voice in how they can best succeed in mastering learning objectives. Assessment is not just administered to children, but accomplished with active participation by the students, parents, and teachers.

ASSESSMENT SHOULD BE FAIR FOR ALL CHILDREN In Chapter 1 we pointed out that many tests are inappropriate for children who are culturally or linguistically diverse. In addition, educators must evaluate children with disabilities accurately and fairly. Because tests may not reflect a child's culture or language, other, more effective methods must be employed. As was mentioned earlier, a variety of strategies can overcome the limitations of a single method or test. The person administering the evaluation must be alert to limitations and have other strategies to acquire the needed information (Mattix-Foster & Ramos, 2017). This is especially important in the case of children who are culturally and linguistically diverse or whose abilities are outside normal developmental ranges (Barrera, 1996; Genishi & Dyson, 2009; Goodwin & Goodwin, 1993). Recommendations for assessing culturally and linguistically diverse children fairly include:

- Use assessment tools that are culturally and linguistically appropriate. Are the terms, pictures, and items familiar to children from the culture of the child being assessed? Is the instrument available in the child's home language?
- For standardized tools, review the test manual to make sure the instrument was standardized with samples of children similar to the children being assessed.
- If there is uncertainty about how well a child speaks and understands English, administer a language proficiency test before assessing a child to determine if he or she can speak and understand English proficiently.

- Administer the assessment in the home language of children who are non-English speakers or English Language Learners to capture a true understanding of their development.
- If the assessment is not available in the home language, a trained interpreter should assist with the assessment. At a minimum, the interpreter should be as familiar with key terms in the assessment tool and the process used to administer it as a speaker of the child's home language would be.
- Talk with family members of the child being assessed for additional information about the child's background and development.

(Espinosa & López, 2007; NAEYC, 2009)

Similarly, assessment of children with disabilities should be developmentally, culturally, and individually appropriate. Assessment of these children often leads to a diagnosis of the child's disability and/or determination of an infant or young child's eligibility for receiving special services. Additionally, assessment information can inform professionals about the types of early intervention services needed for infants and toddlers with developmental delays or other special needs and instructional needs for older children. Family partnerships are essential to understanding the strengths and needs of children with potential disabilities, and federal law requires their involvement in the assessment process. Assessment tools should be tailored to understanding the type of disability or delay the child is experiencing. For example, if the child has motor challenges, it would be important to gather assessment information using a standardized tool that has a motor section, health records, parent input, and observations. Together, this process is called an **evaluation** because assessment information is being gathered from multiple sources to determine the child's current functioning, and to determine what should happen next in regards to a child's educational and/or developmental needs (DEC/CEC, 2007).

Principles of Assessment for Young Children

The previous section described principles for assessing all children. As a follow-up to that information, we can address how those principles are applied to young children. Principles for early childhood assessments are not just relevant for the assessment of children, but also have implications for program evaluation and quality (Epstein, Schweinhart, DeBruin-Parecki, & Robin, 2004). In the early childhood years, assessment of development is the primary focus. The NAEYC position statement calls for sound assessment that reflects how young children grow and learn. Sound assessment is described through a series of statements of principles (Copple & Bredekamp, 2009, pp. 21–22):

Search and Share 2.1

Fair Assessment for Children with Disabilities

Search the web to learn more about what the **Individuals with Disabilities Education Improvement Act (IDEA, 2004)** requires to help ensure fair testing of children with disabilities. Share one aspect of the law you think is particularly important to fair testing. What strategies would you use to ensure fair testing of children with disabilities?

Margie Phillips—First Grade

Two boys in Margie's first-grade class are having trouble copying information from the board. As a result, they are not having success in completing board assignments. Margie feels that the boys are not paying attention; however, she talks to the parents and suggests that the parents seek professional help to determine whether there is a problem. The parents of the boys take them to a local university to be tested by an early childhood diagnostician. After the assessment, the specialist calls Margie and explains that the boys have difficulty transferring information from the board to paper. They are unable to remember the written material between seeing it on the board and then looking down to their paper. Both boys need to have the information written on paper and placed on their desks for easy referral. Although Margie feels that changing her methods for the two boys is unnecessary and shows favoritism, she follows the specialist's recommendations. When she tries placing the information on the boys' desks, she is surprised to see that the boys improve in completing assignments.

- A. Assessment of young children's progress and achievements is ongoing, strategic, and purposeful. The results of assessment are used to inform the planning and implementation of experiences, to communicate with the child's family, and to evaluate and improve teachers' and the program's effectiveness.
- B. Assessment focuses on children's progress toward goals that are developmentally and educationally significant.
- C. There is a system in place to collect, make sense of, and use the assessment information to guide what goes on in the classroom (formative assessment). Teachers use this information in planning curriculum and learning experiences and in moment-to-moment interactions with children—that is, teachers continually engage in assessment for the purpose of improving teaching and learning.
- D. The methods of assessment are appropriate to the developmental status and experiences of young children, and these methods recognize individual variation in learners and allow children to demonstrate their competence in different ways. Methods appropriate to the classroom assessment of young children, therefore, include results of teachers' observations of children's work samples, and their performance on authentic activities.
- E. Assessment looks not only at what children can do independently but also at what they can do with assistance from other children or adults. Therefore, teachers assess children as they participate in groups and other situations that are providing scaffolding.
- F. In addition to this assessment by teachers, input from families as well as children's own evaluations of their work are part of the program's overall assessment strategy.
- G. Assessments are tailored to a specific purpose and used only for the purpose for which they have been demonstrated to produce reliable, valid information.
- H. Decisions that have a major impact on children, such as enrollment or placement, are never made on the basis of results from a single developmental assessment.

or screening instrument/device but are based on multiple sources of relevant information, including that obtained from observations of and interactions with children by teachers and parents (and specialists as needed).

- I. When a screening or other assessment identifies children who may have special learning or developmental needs, there is appropriate follow-up, evaluation, and, if indicated, referral. Diagnosis or labeling is never the result of a brief screening or one-time assessment. Families should be involved as important sources of information.

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The NAEYC position statement demonstrates how appropriate assessment is tailored to the changing developmental needs of young children. As children go through developmental differences, assessments that best measure the variations in development are employed. In the next section we will discuss how appropriate assessment is conducted with infants, toddlers, and preschool children.

How Infants and Young Children Are Assessed

The early sections of this chapter have discussed reasons for measuring and evaluating infants and young children, and various methods available to accomplish this. Sometimes we measure a child informally. We might look for characteristics by watching a child's behaviors at play or in a setting arranged for that purpose. A pediatrician may observe a baby walk during an examination to determine whether he or she is progressing normally. In a similar fashion, a teacher may observe a child playing to determine how he or she is using language. A second-grade teacher who constructs a set of subtraction problems to evaluate whether his or her students have mastered a mathematics objective is also using an **informal assessment**. Observation, which is defined by Mindes & Jung (2015) as any systematic method for gathering information about children by watching them, is also considered informal assessment.

Formal assessment occurs when standardized instruments are used for the measurement and evaluation of children's development and progress. These measures are designed by experts who then try them out with a large number of children to ensure the instruments are reliable and valid. This process ensures that educators can depend on the information gained each time the test is given to an individual child or group of



Observation a

Fotolia



Observation b

Fotolia



Observation c

Monkey Business/Fotolia

children. This type of test is called a **standardized assessment** because it has specific administration procedures and criteria to judge a child's performance and it has been shown to be reliable and valid. Formal assessments can be administered by trained teachers or other education personnel. Some require certification.

Why do we measure the development of infants and young children? The most common purpose is to assess development. Soon after a child's birth, for example, an **obstetrician** or **pediatrician** evaluates the newborn by using the *Apgar scale* (Apgar, 1975) to determine whether he or she is in good health. Thereafter, at regular intervals, parents, doctors, and teachers follow the baby's development by using standardized tests and informal assessment strategies (Greenspan, Meisels, & the Zero to Three Work Group on Developmental Assessment, 1996; Wodrich, 1984). The screening test for phenylketonuria (PKU) may also be administered to detect the presence of the enzyme phenylalanine, which can cause mental retardation if not managed through diet. In addition, there are newborn screening tests for hearing, cystic fibrosis, sickle cell disease, congenital hypothyroidism, and many others (American Academy of Pediatrics, 2017; Widerstrom, Mowder, & Sandall, 1991). The specific screening tests administered to newborns vary by state.

But what if development is not progressing normally? How can assessment measures be used to help the young child? In recent years, researchers, medical specialists, and educators have learned how to work with children at increasingly younger ages to minimize the effects of delays in growth or other problems that retard the child's developmental progress. Various strategies and instruments are now available. For instance, a **neonatologist** conducts a comprehensive evaluation on a premature baby to determine what therapy should be initiated to improve the infant's chances for survival and optimal development. The child who does not speak normally or who is late in speaking is referred to a speech pathologist, who assesses the child's language and prescribes activities to facilitate improved language development. Similar screenings and assessments occur in other developmental areas.

During a child's infancy and toddler years, child development specialists initiate therapy when development is not typical (Meisels, 1996). During the preschool years, this effort includes assessing and predicting whether the child is likely to experience difficulties in learning. Tests and other measures are used to help to determine whether the child will develop a **disability** and how that disability will affect his or her success in school. Again, when problems are detected, individualized plans are developed, with input from family members and professionals, to address the child's needs in a timely manner to optimize his or her development in preparation for school entry. The child may have a vision impairment, difficulty in hearing, developmental delays, or a diagnosed disability that may interfere with learning. The assessment measures used will help identify the exact nature of the problem. In addition, test results will be used to help determine what kind of intervention will be most successful (Wodrich, 1984).

During the preschool period or even earlier, a developmental difference may emerge. Parents or other adults who interact with the child may observe that he or she demonstrates a learning ability or potential that is much higher than the average range. A more formal evaluation using standardized tests may confirm these informal observations. Plans then can be made to facilitate the child's development to help him or her to achieve full potential for learning.

Although potential for learning may be assessed at a very early age in the child who is gifted or talented, learning aptitude may also be evaluated in the general population during the preschool and primary school years. Educators wish to determine children's learning abilities and needs, as well as the types of programs that will be most beneficial for them. Informal strategies and formal tests are used with individual children and groups of children to assess what and how much they have already learned and to evaluate weak areas that can be given special attention. Informal and formal strategies are also used to evaluate the success of programs that serve children, as well as to provide indicators for how programs can be improved.

Assessment for Risk in Developmental Status

When Sarah was 6 months old, her teenage mother gave her up for adoption. Because Sarah's father could not be located to agree to release her for adoption, Sarah was placed temporarily in a foster home.

Prior to placement with the foster family, Sarah had lived with her mother in her maternal grandparents' home. In addition to Sarah's mother, six other children were in the family. Both grandparents were employed. Sarah's primary caregiver had been an aunt with intellectual disabilities who was 12 years old.

For the first few days after Sarah was placed in the foster home, she cried when the foster parents tried to feed her. She sat for long periods of time and stared vacantly, without reacting to toys or people. She had no established patterns for sleeping and usually fretted off and on during the night.

When a pediatrician examined Sarah, she was found to be malnourished, with sores in her mouth from vitamin deficiencies. As determined by the *Denver Developmental Screening Test*, she was developing much more slowly than normal.

A special diet and multivitamins were prescribed for Sarah. Members of the foster family patiently taught her to enjoy eating a varied diet beyond the chocolate milk and cereal that she had been fed previously. Regular times for sleeping at night gradually replaced her erratic sleeping habits. Her foster family spent many hours playing with her, talking with her, and introducing her to various toys.

By age 11 months, Sarah had improved greatly. She was alert, ate well, began to walk, and said a few words. Her development was within the normal range, and she was ready for adoption.

Sarah had benefited from being placed in a home where she received good nutrition, guidance in living patterns, and stimulation for cognitive, physical, and social development. Without early intervention, Sarah's delay in development might have become more serious over time. Adaptability to an adoptive home might have been difficult for her and her adoptive parents. If she had been unable to adjust successfully with an adoptive family, she might have spent her childhood years in a series of foster homes, rather than with her adoptive family. She also would have been at risk for not learning successfully beginning in the first years of schooling.

Combating Limitations in Vocabulary and Concept Development

Micah, who is 4 years old, is the sixth child in a family of seven children. Both he and his younger brother are cared for by a grandmother during the day, while their parents are at work. Although Micah's parents are warm and loving, their combined income is barely enough to provide the basic necessities for the family. They are unable to buy books and toys that will enhance Micah's development. Because the family rarely travels outside the immediate neighborhood, Micah has had few experiences that would broaden his knowledge of the larger community.

Fortunately, Micah's family lives in a state that provides a program for 4-year-old children who can benefit from a prekindergarten class that stresses language and cognitive development. The program serves all children who come from low-income homes or who exhibit language or cognitive delay.

In response to a letter sent by the school district, Micah's grandmother took him to the school to be tested for the program. Micah's performance on the test showed that he uses a limited expressive vocabulary and lacks many basic concepts. When school begins in late August, Micah will start school with his older brothers and sisters and will be enrolled in the prekindergarten class.

Micah will have the opportunity to play with puzzles, construction toys, and other manipulative objects that will facilitate his cognitive development. Stories will be read and discussed each day, and Micah will be able to look at a variety of books. Micah's teacher will introduce learning experiences that will allow Micah to learn about shapes, colors, numbers, and many other concepts that will provide a foundation for learning in the elementary school grades.

Micah will also travel with his classmates to visit places that will help him learn about the community. They may visit a furniture or grocery store or a bread factory. Visitors to the classroom will add to the students' knowledge about occupations and cultures represented in the community. The children will have opportunities to paint, participate in cooking experiences, and talk about the new things they are learning. They will dictate stories about their experiences and learn many songs and games. When Micah enters kindergarten the following year, he will use the knowledge and language he learned in prekindergarten to help him to learn successfully along with his 5-year-old peers.

Elements of a Comprehensive System of Assessment for Children of All Ages

Not only do teachers need to understand what strategies and tools are available and how to use them, but they also need to have a systematic plan for conducting assessments that includes both formal and informal components (Bowers, 2008; National Association for the Education of Young Children, 2017). There are many types of assessment systems. Chapters 9 and 10 describe some systems that are currently used in early childhood programs. All systems use most of the elements described next.

Components of an Assessment System for Infants and Toddlers

Teachers and caregivers who work with infants and toddlers engage in the process of documenting development. They collect data from daily interactions with the very young to form a picture or profile of the child. This collection of information consists of their own experiences with the child as well as the family's experiences. The resulting profile helps them understand the child's changes over time. Elicker & McMullen (2013) suggest the use of anecdotal observations, journals and blogs, and photo documentation in addition to developmental screening and structured assessments. This information should never be used to pressure or stress the child. A developmental profile offers another source of understanding the whole child.

ANECDOTAL OBSERVATIONS Daily routines and events form the basis for anecdotal observations. What the child ate, how much was eaten, naps, and highlights of the day are recorded by the teacher. These observations are recorded daily.

JOURNALS AND BLOGS Teachers and families find it helpful to keep a journal that might be sent home weekly with reports of activities, plans for curriculum, and examples of a child's work. Parents can contribute to the journal. Interactive media can also serve the function of a journal, with photos and information exchanged between the infant child-care setting and the home.

PHOTO DOCUMENTATION Photographs can be taken of group as well as individual activities and accomplishments. Elicker and McMullen (2013) suggest that teachers can make a weekly poster of the class activities to share with the children and their families. Photos can also document class projects, special events, and trips outside the center. For example, an enrichment center for infants and preschool children in Louisiana had videotapes of the day's activities playing on a television set when parents came to pick up their children at the end of the day.

DEVELOPMENTAL SCREENING TOOLS AND STANDARDIZED ASSESSMENTS Screening instruments are another category of information that includes more formal, standardized examinations of development. Developmental screening tools provide a quick snapshot of a child's development across domains. Developmental screenings and infant and toddler standardized assessments include diagnostic information to support intervention with children who are at risk for developmental delays and disabilities. These practices are discussed in Chapter 4. These reliable and valid tools can contribute to creating a complete picture of the child's development.

DEVELOPMENTAL PROFILE A child's developmental profile collects data from many sources and helps describe areas of development and learning over a period of time. Sources of information discussed in this section all have a role in the child's profile. This includes observations, photos, journal entries, developmental scales, etc. An example of a developmental profile is given in Figure 2-1.

PORTFOLIOS Many of the assessment materials and much of the documentation can be organized into a portfolio to make a comprehensive record of infant and toddler development. This strategy is useful both for the teacher and the family.

Figure 2-1 Developmental profile

Name: Audrey B.
Age: 3 years

Physical Development: Large and small muscle control, use of sensory materials

Audrey is very active physically. She enjoys activities that challenge her climbing, jumping, and running skills. At a recent birthday party she explored a variety of blow-up structures and attempted to use a structure designed for older children. She also enjoys tactile experiences such as playing with clay and finger painting.

Social–Emotional Development: Ability to interact with others, enter a play situation, and show empathy for others. Demonstrates management of emotion

Audrey is very confident when entering new group situations. She has been attending a Mother's Day Out preschool program since she was two and from the very beginning was very happy to arrive at the school and go to her classroom. She is demonstrating some confusion in acceptable social behaviors. Her teacher has commented that she plays very rough and pushes children. Audrey is learning that pushing another child is not effective in trying to be accepted as a play partner or in a play group. She is very excitable and sometimes shrieks at home or in the classroom. The teacher and her parents are teaching her when she needs to use "inside voice."



Elizabeth B. Photography

Elizabeth Beuke

Cognitive Development: Uses problem-solving, creative expression, and progress in levels of cognitive development

Audrey has used planning for her play and cognitive activities. On one occasion at home she was given a wilted rose that was losing its petals. She smelled the rose, felt the petals, and then removed them from the stem. First she made piles of petals and moved them from place to place. Next, she put them in the back of a toy vehicle. After a few minutes she returned to the petals and took them into her play kitchen and put them in a pan on the stove. Finally, she took the petals and put them in her doll buggy. The play ended when her grandmother took the petals, telling her, "These are all used up. Let's throw them away." Audrey persisted by trying to take the buggy and petals outside. Instead the petals were removed from the buggy and Audrey was put in the car to go to a restaurant. Audrey has demonstrated an understanding of classification. At school she was given a small bucket filled with various types of clothespins. She soon put those that were alike together.

Language and Literacy Development: Uses language effectively to communicate with others and enjoys printed materials

Audrey is able to speak in three- and four-word sentences. She can ask simple questions and answer questions. She has many books at home and is read to each night before bed. At school she enjoys story time with the rest of the class. She sometimes selects a book to look at by herself.

Development of Self-Help and Personal Care Skills

Audrey's most important self-help skill has been to initiate potty training. After she was praised for her first successful attempt to use her small potty, she kept trying to use the toilet and do it again. After the initial days of success, she had accidents off and on, but is becoming more reliable each week. She can use a fork and spoon with some success, but sometimes reverts to fingers when the food is difficult to handle. She has not shown interest in dressing herself, but is getting encouragement from her parents to try to put on different items.

Summary

Audrey is a very happy child. She hums and sings songs she has learned at school when the family is riding in the car. She is now adjusting to a new baby brother and occasionally "acts out" according to her mother. She loves to go to different places such as the zoo and play dates. She enjoys her extended family and frequently gets together with cousins from both sides of the family. She is looking forward to moving to the 3-year-old group at the Mother's Day Out Program.